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A CLINICAL LECTURE.

EPILEPSY FOLLOWING AN INJURY TO THE HEAD; TREPHINING.

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DELIVERED AT THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

[Reported for THE BULLETIN by WM. H. MORRISON, M.D.]

GENTLEMEN: This case is of interest as bearing on the subject of cerebral topography and the localization of intracranial lesions. This boy has been brought to us by his physician for our opinion as to the propriety of an operation. The physician has prepared the following history:—

"E. R., æt. 15 years, was struck on the head four years ago with a brick. Six months ago he experienced for the first time an epileptic fit. This was slight. At this time he was engaged in a bookstore. In these first attacks he could prevent himself from falling by closing the eyes and leaning against any convenient object. Two weeks after the first attack he had a fit in which he fell. The attacks now present the typical appearance of epilepsy, coming on suddenly with a loud cry, followed by a loss of consciousness and convulsions, which are at first tonic and then clonic. The duration of the attacks has been from five minutes to four hours. In the latter case there has been a series of attacks. At times there is spasmodic expulsion of the urine. The attack ends in profuse perspiration. There seems to be some impairment of mental power. In the latter attacks, the patient has shown a suicidal tendency, having been found, after an attack has passed, on the roof of the house and in other dangerous positions. The patient has been thoroughly treated with the bromides and with other remedies without benefit. All sources of reflex irritation, such as intestinal worms, phimosis, and habitual masturbation, have been inquired into."

Here, then, we have a case of epilepsy following traumatism, and, to-day, I shall ask your attention rather to the question, whether or not anything radical can be done for the relief of this boy, than to the consideration of the disease itself. First, then, as to the point of injury. This is shown by a distinct line of cicatricial tissue, on the left side of the head one and one-half inches from the median line and in the line of the external auditory meatus. At this point the scalp is movable on the bone beneath, and there is no sign of depression. In speaking of this question of the localization of cerebral lesions, I have on a previous occasion referred to the importance of determining whether or not the spasmodic movements are limited to one group of muscles, or to one side or even to a single member. The more circumscribed the convulsive attack is, the greater is the probability that it is due to a definite, localized lesion within the cranium. Even when the attack finally becomes general, if in the beginning it has been localized, it has an important significance. In the present case there is no definite local beginning to the attack, but the symptoms are those of a general epileptic convulsion. The spasm does not begin in any one member.

Now with reference to the question of cere-

bral localization. If the head is placed in such a position that a line drawn from the condyles of the occiput to the alveolar process of the superior maxillary shall be strictly horizontal, we obtain the basis of cerebral topography. This is termed the plane of Broca. A line drawn vertical to the first through the external auditory meatus will give the true bregma of the skull. This vertical line is termed the auriculo-bregmatic line. A line parallel to Broca's plane is now drawn on the top of the head and on this line, two inches back of the auriculo-bregmatic line, a vertical line is erected. Where this second vertical line reaches the convexity of the head, is the point under which lies the upper extremity of the fissure of Rolando. A line drawn from this point downward and forward is the Rolandic line, and corresponds with the position of the fissure of Rolando. Around this line are grouped the centres which govern motion in the various parts of the opposite side of the body. The Rolandic line is therefore the basis of operative procedures directed to the relief of the intracranial conditions in so far as they are indicated by spasm. A notable series of cases are now on record, and being constantly added to, in which operation in this region has revealed the presence of a clot, a tumor, a depressed spicule of bone or an abscess, and, in which, by the operation, relief has been brought and the symptoms cured. Of course, in a case where there are serious symptoms associated with evidences of lesion as such, as depression at some other point than that which has been indicated, such evidences furnish an indication for operation at that point.

What are the conclusions which we draw from these recent investigations in cerebral topography as to the propriety of operating where intracranial lesion is suspected? Trephining is indicated in any case where there is a distinct history of injury, with depression or the like where general convulsive attacks ensue. The operation is indicated whenever there is circumscribed spasm, either hemi-spasm or spasm of a single member, which can be correlated with one of these centres; especially is this the case if there is a history of traumatism, or if there are associated symptoms indicating abscess or tumor. Under such circumstances it is our duty to operate in the Rolandic line. In cases where the spasm is of the character that I have indicated even if the injury has been at the opposite side of the skull, we may trephine in the Rolandic line, because a lesion may have been produced by contrecoup. Where, however, the convulsion is general, and we have nothing else to guide us, we cannot connect it with a local lesion. It may be the result of diffused meningitis, or of a tumor at the base of the brain. Still, even under these circumstances, unless the nature of the case is clear, after thorough treatment, hygienic and medicinal, has failed to improve the patient, the question of operative interference must be raised, and it can only be decided on the merits of the particular case.

In the present case, the convulsions are of a general character, and give us no clue whatever to the spot affected, but, as you will have already noted, the scar upon the scalp is immediately above the upper part of the Rolandic line. A lesion at this point would be peculiarly liable to cause spasm. If the lesion were limited to a single part of the field there would be a localized spasm, but if it were attended with considerable meningeal thickening, which irritated a number of these centres, which are here closely grouped together, there would be a diffused spasm or a general convulsion. A small lesion may, however, be associated with such a sensibility of the general cranial mass, that when the explosion occurs the whole brain suffers, and a general convulsion is the result.

From our study of this case, I have no hesitation in deciding that in the present instance, trephining is our duty. The scar should be made the centre for the application of the trephine. I say this because the lesion is so closely associated with the motor centres, and this justifies the hope that the lesion may not be very extensive. The patient has been under thorough medical treatment without result; the attacks are increasing in frequency and severity; the fits are attended with one of the most serious features that epilepsy can present, that is its post-epileptic suicidal delirium. The fact that the first seizure occurred three and one-half years after the injury is, of course, against the traumatic origin of the epilepsy. In spite of this, the reasons which I have given, I think, justify the operation. The patient and his parents have been informed with reference to the dangers of the operation, and also of the possibility that the operation will be

without benefit, but they are anxious that it shall be performed. The patient will be examined by Dr. Ashhurst,* and if he agrees with us as to the advisability of an operation, it will be performed.

ORIGINAL COMMUNICATIONS.

THE USE OF LITHIUM BROMIDE IN COMBINATION WITH SOLUTION OF POTASSIUM CITRATE.

BY JOHN AULDE, M.D.

CLINICAL observations in the use of remedies are generally conceded to have an important influence in directing the thoughts of the physician in methods of treatment, and when he is convinced that a new therapeutical agent has been discovered, it is but justice to his fellows that the claims for attention should be announced. Without any desire to boast of my success in treating certain classes of disorders, I deem it worth while to publish brief notes of a limited number of cases which have presented themselves within the past three years. From the clinical histories of the different patients, it will at once be manifest that all of them may be classed in a general way as coming under the same head, but when examined more carefully it is evident that there are several subdivisions, and it is also apparent that the paucity of the symptoms for this special treatment does not contraindicate its use, but, on the contrary, with the cases properly selected, the treatment is substantially the same for all.

CASE I.—About the last of November, 1883, a gentleman called on me, complaining that he was a more or less constant sufferer from a distressing sensation of weight in the chest, placing his hand at the same time over the area occupied by the base of the heart.

To all outward appearances this gentleman was in the enjoyment of excellent health, and, as he proceeded to relate the history of his troubles, I became particularly interested, but was not a little surprised when he deliberately pulled from his pocket a batch of prescriptions, which proved on examination to be copies of the prescriptions which had been ordered for him, and which he had been faithfully taking for the preceding eight months, and that, too, without any benefit. His age at the time was thirty-eight years, and his business that of bookkeeper in a large wholesale and retail establishment. He was then working from fourteen to sixteen hours daily, along with others, in a very small, poorly ventilated room, taking only a few minutes for his meals. The moral surroundings were of the best, he had a good appetite, and the bowels were for the most part regular, although somewhat inclined to costiveness. Physical examination developed no organic affection of the heart, but there was a peculiarity in its action, which I have frequently observed in similar cases since, viz., the soft, wavy, almost noiseless first sound, coupled with a sharp, accentuated, sometimes almost ringing second sound. The rhythm was not sufficiently disturbed to class it as an irritable heart, but it evidently produced that effect on the disposition, for he said that since he had been a sufferer he had formed a habit which he feared had already become chronic, that of finding fault with himself and everybody else with whom it was his misfortune to come in contact. There was an appreciable tenderness on percussion in the region of the gall-bladder, and, on inspection, there was slight yellowness of the conjunctiva. I may add that this gentleman wished to be treated for dyspepsia, and a glance at the copies of the numerous prescriptions which he brought showed that his former attendant had obliged him by gratifying his whim in this respect. Urine strongly acid in reaction; specific gravity 1012.

He was ordered to take of the bromide of lithium fifteen grains three times daily, one hour before or two hours after meals. The lithium was given alone, dissolved in a little cinnamon water, and at the end of a week he reported that the distress had so far disappeared that he would not feel it, were it not that he was constantly on the outlook for its reappearance.

For the second week the medicine was continued but twice daily, after which it was taken

* The case was examined by Dr. John Ashhurst, Jr., who agreed, that although trephining in this case was an experiment, and one attended with a considerable degree of risk, it was a justifiable operation on account of the persistence of the convulsions, in spite of judicious medical treatment, and more especially on account of the serious character of the suicidal mania which accompanied the seizures. The operation was performed October 16, 1886, and a disk of bone five-eighths of an inch in diameter removed. The cicatrix in the scalp was examined, and presented nothing abnormal. The piece of bone removed was perfectly healthy. The dura mater was not adherent, and presented no evidences of disease. The patient left the hospital in an improved condition, but at too early a period to enable a positive estimate to be formed as to the final result.

only at bed-hour, and that only for another week. Following this, other remedies were adopted, with the object of counteracting the tendency to a redevelopment of the condition. In other words, he was thoroughly relieved. Two years later the same condition of affairs threatened, but timely treatment entirely avoided another attack. A point to be noted in this connection is, that he never complained of any drowsiness while taking the lithium in the first place, but in the last instance the dose had to be reduced, an indication, I suppose, that there was not the same demand for it on the part of the system. It should also be stated that during the period of the second attack, and for some time previous, the patient had suffered slightly from internal hemorrhoids, due no doubt to intestinal indigestion, and attention to this formed a part of the treatment.

CASE II.—The next case to which attention is called is that of a merchant whose work was not altogether indoors, who had been an invalid for the preceding six years. At least, he considered that because he was unable to eat anything besides a little bread and milk, and could stand little if any fatigue, he had no right to class himself elsewhere than with the army of invalids. Aged about fifty years, he had early in life formed those correct medical ties which prevented him from going beyond the family of his father's physician, and, in accordance with the regulation theories, he had submitted to be bled, blistered, cupped, scarified, and purged, but all in vain. Neither could the balmy air of the sunny South, nor the wintry blasts of the hyperborean regions bring back to his cheek the flush of health.

This gentleman applied to me for the first time in the latter part of June, 1884. An examination of the heart showed the same general characteristics as stated in that of Case I., only in this case the irregularity was so pronounced that at times the patient experienced a sensation as if the heart had stopped, and, no matter what his surroundings were, he felt impelled to stop instantly. He complained of a feeling of stiffness in the muscles of the back, occasionally a dull pain in the lumbar region, and a general feeling of *malaise*. The urine was strongly acid, and contained a trace of sugar; specific gravity 1028. He was not again seen until two weeks later, when he told me that the medicine made him feel worse, and that he had discontinued taking it. After talking the matter over, he was convinced that he had been benefited in some respects, and was finally persuaded to go on with the treatment, taking but one-half the quantity first ordered. In the early part of September the condition of the urine was neutral in reaction, and the specific gravity had been reduced to 1018, and he said he felt very well in every respect, and that by way of speculation he had commenced to extend his diet to include saurkraut, pork, and various other indigestible products. For the preceding two weeks he had been taking daily ten grains of the bromide of lithium, but, at this visit, he was advised to continue it only once every second day, the single dose to be taken on retiring. To be certain of effecting a cure in this case, I did not think it wise to depend altogether on nature, but ordered what in general parlance is called a liver stimulant. On the 1st of October the patient reported that he had never felt better in all his life, that he was able now to do a day's work, and had never worked steadier than for the preceding three weeks. His weight had very considerably increased, and he believed himself to be in excellent condition, but I was given to understand that he did not want to get too well, as it would be very discouraging to his old family physician. A year later he returned with some of the same symptoms, but with mild treatment there was no further trouble, and I see him frequently and know that he enjoys good health.

CASE III. was that of a married lady, æt. 28, who first consulted me in the early part of July, 1884, for urticaria, but who had been for nine years past a sufferer from rheumatoid arthritis. She had not been constantly under treatment during all of that time, but she had been under the care of several physicians, both in this city and elsewhere, but no method yet devised had given her any relief, and, as a result, she had become discouraged, and believed that nothing further could be done. She concluded, however, in August, to place herself under my advice, and my first care was to examine the urine, which was found to be 1022 specific gravity, and extremely acid. The ball of the foot was so sensitive that it was with the greatest difficulty that she was able to walk, and a noticeable feature about the hands was the enlargement of the metacarpo-phalangeal articulations of the index and middle fingers of both

hands. She was disposed to date the beginning of this affection from her first pregnancy, but it should be stated that the patient's mother had for many years been a sufferer from the same disease. The evidence in the case of the mother was too plain to be mistaken, as the hands and feet were very much deformed. The family had been led to believe that this was a form of rheumatism, and from all the information I could glean I could not well avoid the conclusion that it was rather the effect. The patient herself had never had any other kind of rheumatism. The subjective symptoms were, pain on movement, together with stiffness of the muscles of the back, but there was no apparent heart complication, and no fever. She was placed on the effervescing citrate of lithium, drachm doses, at first three times, then four times daily, but at the end of three weeks her condition was substantially the same, at which time she was placed on ten grains of lithium bromide, combined with two-thirds of a drachm of liquor potass. citras of the Pharmacopœia well diluted with water. In order to interest the patient in following up the treatment, I provided her with litmus paper, and directed her to take daily a sufficient quantity of medicine to keep the urine neutral, but unfortunately, I think, for the patient, as she soon learned that when the urine was neutral there was an absence of pain, and the visits to the office occurred at intervals of a month or more, and I saw her but a few times afterwards. During part of the treatment she had taken hepatic stimulants, and she was doing so well in October that she was ordered to continue the bromide of lithium and the liquor potass. citras twice a day; of the first she was to take ten grains with forty drops of the latter prepared with a little water. The result of the treatment in this case is that she has been comparatively free from pain and lameness now for the past two years, and, what is more to the point, the health has been very much improved, and the disposition, which for the past eight years had been exceedingly irritable, has undergone a marked change for the better. The final treatment in the case was the exhibition of iron and arsenic, but that was not continued for any length of time, for the reason, I suppose, that the patient considered it unnecessary. I may mention, in conclusion, that electricity proved of no apparent advantage here, the faradic current having been faithfully used for the period of two weeks, but, of course, this apparent failure would be no contraindication for the use of the galvanic current, and with those who have the facilities, I bespeak for that remedy a trial when opportunity is presented.

CASE IV. was that of a married lady twenty-four years of age, suffering from irregular heart, chronic bronchitis, along with constipation, and withal an interesting case of bad temper. To use her own words, "she had taken medicine enough to float her, and yet it did not seem to 'fease' her, and she had bottles sufficient to start a one-horse drug store." In this case the bronchial difficulty was the most prominent subjective symptom, but inspection and physical examination directed attention to the irregular and intermitting heart. I did not learn what remedies this lady had taken, but she had long been under her family physician, and was loth to begin with another doctor. Under the use of fifteen grains of the bromide of lithium twice a day, with a pill of aloin, strychnine, and belladonna at bed-hour, she made rapid progress, and at the end of a week was much better; so great was the relief that at the expiration of ten days the amount of medicine was decreased one half. On the 17th of August, 1884, three weeks after treatment had been instituted, the urine was found on examination to be highly acid in reaction, specific gravity 1010, and no indication of the presence of albumen. A week later she was so free from heart trouble that she was placed on a mixture containing Fowler's solution, potassium iodide, and the pyrophosphate of iron, and this was continued, though not regularly, for about four weeks. The latter part of September she was again advised to take the lithium bromide, although this time the dose was limited to five grains twice daily. At this juncture she rebelled against continuing treatment, but for a very different reason from that first presented, and although she continued for a short time, she was in a condition not to require further treatment, having apparently recovered. I have not heard from her for the past year, but for the first year after treatment she was enjoying excellent health.

CASE V. was that of a mechanic, a hard-working man about forty-five years of age, and the only difficulty which he complained of was a "lump" in his throat, and a distressing sensation at the base of the heart. He admitted

that he derived no benefit from his night's rest, and that he was tired all the time. This gentleman had not previously been under treatment, but he had come to the conclusion that he needed medicine for dyspepsia. He was ordered to take ten grains of lithium bromide and two-thirds of a drachm of a solution of the citrate of potassium three times daily, two hours after meals, and at the end of a week he had so far recovered that the medicine was continued but twice daily, a liver stimulant being given in the mean time. The first visit was made on the 5th of December, 1884, and treatment was persisted in for two weeks, but in the early part of January, 1885, while visiting a member of his family at the house, he said the "lump" had indicated its willingness to return, when I advised him to have the medicine renewed, and take it twice daily for a week or ten days, and since that time he has had no further trouble. The urine in this case was not examined, but there was the same peculiar action of the heart as heretofore described, the first sound labored and indistinct, while the second was sharp and accentuated. It is needless to say that this peculiarity entirely disappeared under the use of the medicine. There was no history of rheumatism, as the patient had always enjoyed perfect health, although the "dyspepsia" he complained of had existed for the previous six or eight months.

CASE VI.—During the latter part of December, 1884, a married lady about forty years of age called on me, saying that for several months she had been under treatment for dyspepsia, but without any benefit this far, and that she desired to put herself under my care. A somewhat hasty examination showed an enfeebled condition of the system, produced no doubt largely by over-medication, and I determined to prescribe for her the lithium bromide in small doses along with a liver stimulant. The dose in this case was limited to seven and one-half grains three times daily, and a sufficient quantity ordered to last one week. I did not see her again professionally, but in the course of the following month quite a number of patients presented themselves and referred to this lady as having advised them to consult me, and that was regarded as the best evidence of her recovery.

CASE VII.—In December, 1884, a married lady past the menopause applied to me for the relief of what she was pleased to call rheumatism, a peculiarity of which was that it had heretofore resisted the most faithful treatment. She admitted that it was merely an experiment on her part, as she had given up hopes of ever being any better. The urine was found to be of 1026 specific gravity, and extremely acid and somewhat scanty. She complained of stiffness about the shoulders, and a constant cold feeling in the region of the cervical and dorsal spine, presenting substantially the symptoms described by Dr. Garrod in that condition, which he terms "cold rheumatism" There was in this case a marked depression of the vital powers, although she felt that she was compelled to look after her household duties, and notwithstanding the general feeling of *malaise*, of which she complained, she continued at work. The preliminary treatment consisted in the administration of small doses of resin guaiac, frequently repeated, which relieved the stiffness and coldness about the shoulders, but had no apparent effect in the way of relieving the depression. At the end of a week she was ordered to take a mixture containing ten grains of lithium bromide and two-thirds of a drachm of the liquor potassi citras three times daily, and at the expiration of five days was so much improved that she boasted that she had never felt better in her life.

CASE VIII. is similar to that just related, which occurred in an unmarried lady approaching forty years of age, except that the cold rheumatism, while a symptom which demanded some attention, was not such a prominent factor. Treatment in this case was the same, except that the bromide of lithium was reduced to seven and one-half grains. Before the exhibition of the lithium the urine was found to be 1028 sp. gr. and strongly acid. Improvement was rapid, and at the end of a week the medicine was taken only once daily.

To point out one of the concomitant factors frequently noted in these cases, I wish to call attention to the bronchial complication. Chronic bronchial irritation in this case had existed for so long, and had assumed such proportions that her family and friends predicted an early death from consumption. When the subject was broached to me with such gravity, I of course made a special examination, but fortunately found no grounds for their fears. The so-called rheumatism having disappeared, appropriate treatment was continued, the result being perfect recovery.

CASE IX. is in nearly every respect a counterpart of the two previous cases, and is mentioned only for the purpose of noting the general features, viz: The patient was an unmarried lady of forty or over, suffered greatly from stiffness of the muscles of the back, and, to use a trite expression, was constitutionally tired. The only difference in the treatment of the last two cases was that the order in which the remedies were given was reversed. She also had a troublesome cough, and some weeks after I first saw her had a slight attack of pleurisy, but she made a perfect recovery, and so far as I know has since enjoyed good health.

[Continued in next number.]

"A MISTAKE IN DIAGNOSIS."

BY CHARLES C. PARTRIDGE, M.D.

(Read before the Jackson County (Mo.) Medical Society, January 13th, 1887)

ON the 8th of October last, Dr. McClintock, of Grand Avenue, requested me to see a case with him at his office. The patient was a tall, fairly well-developed man, widower, forty-two years of age, giving an excellent family history, his father having died of some cerebral trouble, his mother being still alive and well.

Mr. — had come to the doctor to be treated for an affection of his lip, which had made its appearance the forepart of August. He first noticed a little hard lump in the centre of his lip, which gave him very little concern at the time, and had it not gradually from that time increased in size he would have thought no more about it. This lesion had not been under way but a short time before another sore, having the same general aspect as the first one, began to show itself at the commissure of the lips on the left side.

About the middle of August the patient becoming alarmed about his condition, consulted one of the first physicians in this city, who pronounced his condition epithelioma of the lip, and advised that he have it extirpated. The patient not feeling satisfied with this diagnosis of his case, consulted another physician of high standing in this community, who likewise pronounced his condition epithelioma, going so far as to make a microscopical examination of the lesion before expressing his opinion to this effect. He likewise advised him to submit to a surgical operation for its removal.

But the patient still not feeling satisfied that he was suffering from cancer, consulted a third physician who differed somewhat from the other two in not assigning any special name to the affection, also by placing the patient upon internal treatment. Now the presumption is that the latter physician was in doubt as to the true nature of the complaint, and thought it best to temporize with either the regular mixed treatment or some tonic mixture, in hopes that the patient would show signs of improvement at his next visit.

I have my doubts whether the patient was placed upon the anti-syphilitic treatment, because the lesion showed no signs of improvement while he was taking the remedy, but according to the patient's own statement his condition grew worse from day to day.

The man, on the 6th of October last, presented for our inspection two lesions, one situated directly in the centre of the lower lip, the other one (much smaller) situated at the commissure of the lips on the left side. The larger lesion was about one and a half inches in length (running in the longitudinal direction of the lip) and was one inch wide. Its surface was partially denuded of epithelium, and partially covered by a horny strata of heaped-up epithelial cells. The part denuded of epithelium was angry-looking, presenting in its centre a number of fungous granulations which were bathed in an unhealthy sero-purulent discharge. The edge of the ulcer was ragged and of a livid, red color. It was noticed also that there was no odor emitted from the sore.

The lesion at the commissure of the lips was about three-quarters of an inch in length by half an inch in width, denuded entirely of epithelium, being more circular in outline, looking indeed as though it might have been punched out with a circular punch, so regular was it in outline. It, like the larger lesion, was covered with a number of fungous granulations, but there was wanting in this lesion the peculiar discharge noted in the other one.

I may say here, that after carefully examining these lesions I came to the conclusion that they were of specific origin, *i.e.*, tubercular syphilides; but from the fact that the diagnosis of epithelioma had been made by two physicians, one of them going so far as to use the microscope before giving his opinion to this effect, I was inclined "to keep my own mind;" in other words, to be very conservative in ex-

pressing my opinion as to the nature of the affection in question before making a thorough examination of the surface of the patient's body, and not until a careful inquiry into his history had been made.

My experience in epithelioma of the lip has led me to note that ninety per cent. of them occur in the centre of the lip, or just to either side of the centre—very rarely at the commissure of the lips—whereas, frequently we meet with syphilitic manifestations in the latter site. Indeed, I once heard my esteemed friend, Dr. L. D. Bulkley, of New York City, remark "that whenever he met with erosions or ulcers at the commissure of the lips, he was always suspicious of syphilis as being the exciting cause." The fact, then, that one of these lesions appeared at the commissure of the lips was, to my mind, a strong point against its being an epithelioma.

The differential diagnosis, then, lay between a syphilide and an epithelioma, and we excluded everything else. I then requested the patient to remove his clothing, and made a very careful examination of the entire surface of the body, but found not even a papule to confirm my diagnosis. I then asked the patient to retract his foreskin, but found it was impossible for him to do so, owing to a congenital phimosis. At this juncture it was also noticed that there was an unhealthy, yellowish discharge, coming, as I first supposed, from the urethra, but a more careful examination showed that it originated from behind the glans penis.

Taking hold of the penis, I was very much gratified, in my examination, to find a characteristic indurated chancre on the dorsal side of the penis, just posterior to the glans. Now, here we have an interesting state of things! Here we have a patient that was about being operated on for epithelioma, with a well defined Hunterian induration—that is, so far as the sense of touch leads us thus far to think. Yes! even after the microscope had been brought into play to confirm a physician's diagnosis. Ah! how little we really know about cell pathology! What slaves we are to theories!

Going still further in our examination, we found the glands in the groins slightly indurated, a little larger than usual, conveying to the sense of touch the sensation of small marbles which roll freely under the fingers, being perfectly separable, and not feeling as though they were joined together *en masse*, as you find them in chancroidal buboes, but each individual gland could be distinctly felt under the finger. The glands at the elbows were also enlarged, also the post-cervical; and the parotid and sub-maxillary glands were visibly enlarged on the left side.

Have we seen enough thus far to warrant us in making a diagnosis of syphilis in this case? Hardly. We have here not even enough lesions to assure us that we have syphilis to deal with, although everything thus far points that way. Why? Have we not the indurated glands in the groins? Have we not the enlargement of the post-cervical and the other glands in their neighborhood? Yes, I answer; but would one be willing to swear to the fact that this man had syphilis from what we have noticed so far in the way of local manifestations, and from the symptoms already enumerated? Could not the chancre behind the glans penis be a collection of smegma, which had gotten into a calcareous condition from its long confinement there? We have not seen this chancre. We are depending entirely upon our sense of touch in claiming that we have a chancre to deal with.

Could not these glands be similarly enlarged (though not specifically indurated) from sympathetic irritation, as we frequently find them from such slight causes as balanitis, phimosis, venereal warts, etc.?

Are we justified, in other words, in making a diagnosis of chancre in this case unless we see it? Are we satisfied that these lesions on this man's lip are tubercular syphilides from the history we have thus far gotten?

So let us inquire a little further into the man's history. Let us proceed further with our examination. I questioned the patient, then, very closely as to the time of his last illicit intercourse, and furthermore asked him if he had had at any time any strange eruption over his body.

His answer to my first question was, that his last intercourse occurred the fourteenth of May, and in answer to my second question, he said that five years previous he had been treated for a specific disease.

Very well! but does this throw any light upon the present state of things? We have no tertiary manifestations (if we have syphilis to deal with) to engage our attention now. In other words, in five years' time we would not expect to find tubercular lesions, for syphilis

follows a regular course. We do not find it jumping over from one stage of manifestations to another. We do not find gummata two months after the initial lesion makes its appearance. Neither do we, on the other hand, find tubercular manifestations five years after infection. So, thus far, the fact that the patient had syphilis five years ago, aids us not an iota in the diagnosis of his present condition. Let us then proceed further with our history. I asked the patient, then, to tell me definitely when his last intercourse occurred. He replied, the forepart of May. How long subsequent to this did you notice anything wrong with your genitals? I asked, and he replied that three weeks after that occurred, I noticed this hardness under my foreskin—this discharge from behind my glans penis. And when did you notice this trouble with your lip? The eighteenth of August, and another swollen condition of the glands just after it.

Here we have some facts to deal with. Here we have what we have been anxiously searching for. Here we have a case of secondary infection, with the history of the initial lesion commencing the forepart of June, the tubercle manifestations occurring in their regular course, accompanied by the indurated glands, etc. To make our diagnosis still more certain, we then asked our patient to let us look into the buccal cavity. There we had presented to our view eight or ten beautifully marked and perfectly characteristic mucous patches on the upper surface and sides of the tongue. On the inner sides of the man's lips we also discovered several similar lesions. Are we now, may I ask, satisfied that we have a case of syphilis to deal with? I feel that we can most assuredly answer in the affirmative. Why? For the following reasons. We have a history of illicit intercourse, occurring the forepart of May, followed in three weeks' time by the hardness behind the glans penis (the Hunterian chancre), the enlargement and peculiar specific induration of the inguinal glands; the enlargement of the glands at the elbows; the post-cervical, sublingual and inferior maxillary glands, and the visible enlargement of the parotid glands on the left side; the well-defined mucous patches on the tongue, in the buccal cavity, and under the lip, and, following in their regular order, well defined tubercular lesions. I may say here that the tubercular manifestations in this case occurred very early, probably owing to the fact that the man had received no specific treatment, and the disease thus having full sway, ran its course more rapidly. But why, some one asks, do we not get a history of the early syphilides in this case? I can only answer that they undoubtedly made their appearance, and were unrecognized by the patient, perhaps unnoticed by him. If not, why not? Frequently, we have cases come to us with tubercular manifestations—yes, with gummata—who do not even know that they have syphilis.

I saw a case some two years ago, in which the syphilitic virus had been working in a young man's system for nearly a year without his knowing it. He had been treated during this period of time by a professed physician, not for syphilis, but—for what? why, malaria, of course. Think of it!

When I saw the poor, unfortunate fellow, he had but just risen from one of the wards of one of the large New York hospitals, where he had suffered the tortures of the damned, waiting for no less than twenty-three tubercular lesions to heal.

I counted over his body twenty-three scars, not any one of which was less than three inches in diameter. It is all very well for us to treat a case now and then of indigestion for malaria, but let us see to it that we don't treat syphilis for malaria, and, I may add, syphilis for epithelioma.

Now, just here, it might be well for us to see what are the points of differential diagnosis in this case between a tubercular syphilide of the lip and an epithelioma.

First. The patient's age was against his having epithelioma. We rarely meet with epithelioma of the lip before fifty years of age.

Second. His good family history was against his having cancer, although this is not always reliable evidence; frequently one does not know what a grandparent died of.

Third. The crustaceous covering of the larger lesion was against its being an epithelioma; there was, besides, no pearly whiteness to the edge of the lesion, that which you will always find in epithelioma.

Fourth. There was no odor present, which, to my mind, was a strong point in favor of its being a syphilitic manifestation. When you meet with an epithelioma the size of the larger lesion in question, you will get the peculiar cancerous odor. I don't know what to liken it to, but if you have once appreciated the odor

of cancer, which is generally better marked in cancer of the womb, than of a similar condition on any other part of the body, you will never fail to recognize it again. This peculiar odor, I say, in this case was wanting.

Seventh. The site of the smaller lesion, situated, as it was, at the commissure of the lips, as I have before remarked in this article, was against its being an epithelioma. Epithelioma rarely occurs primarily at the commissures of the lips, whereas syphilitic erosions and ulcerations frequently do.

Treatment.—The patient was placed upon the following:—

℞. Hydrarg. proto-iodide . grs. xxv.
Ferri redactum . . grs. c.
M. et ft. pil. No. c.

Sig.—At first one pill to be taken three times a day. Increase this number one pill every third day at each dose until gums get tender. Then drop to one-half the number then being taken, and continue with this dose for months.

In one week's time the improvement under this treatment was very marked. The lesions by that time having lost their angry appearance. One week later—the next time I saw the patient—there was in the centre of the lip a very small scab to mark the site of the original larger lesion, the smaller sore having about entirely healed.

After another week Dr. McClintock informed me that the man was entirely well; meaning, of course, as far as any local trouble was concerned. I saw the doctor a few evenings since, and he told me that the man's lip had been well ever since; indeed, he said it would be a difficult matter to tell that the man had ever had any trouble there, so nicely and thoroughly had the lip healed.

It is now over three months since I first saw the case, and fully ten weeks since the lip has been sound.

1311½ E. Eighteenth Street, Kansas City, Mo.

ANTIFEBRINE.

BY JOHN W. HOCKING, M.D.

ANTIFEBRINE is a white, crystalline, odorless powder, slight burning taste, not very soluble in water, but freely soluble in alcohol. It is about three times as powerful as antipyrine, and may be given in from five to fifteen-grain doses. It is recommended by the authors in rheumatism, erysipelas, typhoid fever, septicæmia, etc. I have used it in pneumonia and bronchitis in adults with very satisfactory results, but it is in the treatment of the febrile troubles of children that it has acted most happily in my experience. I have prescribed it in typhoid fever, continued malarial, scarlatina, and the minor febriculæ of children, in doses ranging from one to three grains, for ages from one to five years, dissolved in sherry or Port wine (as may be indicated) and simple syrup with very pleasing effects, not only in the condition of the child, but on the mind of the mother—for nothing is more gratifying to a mother than to notice a reduction of fever after the administration of a remedy. The temperature begins to decline in from ten minutes to an hour after the first dose, and the maximum effect of the drug is attained in from three to four hours, lasting from two to six hours. The pulse-rate falls with the temperature. I have noticed that the little patients usually fall asleep after a gentle or profuse perspiration (according to the dose given), and this often occurred before the second dose was taken. The advantages possessed by anti-febrine over quinine for children's medication are very apparent. Prompt in action, no deafness, tinnitus, nor nausea, and very palatable. The advantage over antipyrine is its cheapness. Costs about twenty-five cents an ounce wholesale.

A MALFORMED HEART-CASE AND POST-MORTEM.

BY E. S. McKEE, M.D., CINCINNATI.

APRIL 22d, 1881, I was called to attend a woman in labor. The delivery was without note, but the child showed marked evidences of cyanosis. This disappeared on the second day. On the third day a messenger called me in haste, saying, "The baby is queer; has convulsions, and don't notice anything." The convulsions, of course, were over before I could get there. The child then had the thrush, from which it recovered, but seemed to suffer from an ill-defined trouble. On the fourteenth day it lay perfectly still, most of the time on its right side. The cyanosis reappeared, especially in its fingers, toes, and lips. Died on the sixteenth day.

Autopsy fourteen hours after death. Head somewhat enlarged; calvarium and meninges healthy. Both lateral ventricles were filled anteriorly with clear serum, posteriorly with puri-

form and softened brain matter. Each ventricle was distended one-fourth inch; third ventricle also distended, but the *iter a tertio ad quartum ventriculum* and fourth ventricles nearly normal. Choroid plexus and other parts nearly normal. The under surface of the brain and pia mater covering the pons, cerebellum, and medulla were covered with flakes of lymph. No sign of tubercle could be found. Lungs normal.

Heart.—No excess of fluid in the pericardium. Organ of normal size, but on examination the right auricle was found a little enlarged and the left auricle small internally, but admitting the pulmonary veins. Internally, the valves were all normal. The septum between the ventricles was incomplete in its upper part, and they led into a common artery representing the aorta, closed by three normal semilunar valves. The orifices of the two coronary arteries lay behind the two anterior valves. Both ventricles normal. Foramen ovale normal, but closing. The remains of the pulmonary arteries consisted in an upward prolongation from the right ventricle and a tube which opened above, into the aorta, was separated from the infundibulum below, by a membranous septum. The aorta passed upwards one-half inch and divided into two branches, the right, the larger, going above the right bronchus, having hooked beneath it the right recurrent laryngeal nerve to gain the right side of the vertebral column. The left passed above the left bronchus, curved downwards, and became the descending aorta. From the right arch ascended the common carotid and the subclavian, in the order named. That on the left gave off the innominate, which, in time, gave off the common carotid and the subclavian. It then continued as a large artery, corresponding with that on the right side, but smaller in calibre, terminating behind and below the bifurcation of the trachea in two parts, each subdividing into numerous branches, carrying the blood supply to each lung. No trace of the ductus arteriosus could be found. Other viscera normal. The mother of this child was markedly strumous, which is given as a cause of this malformation. She could recall no fright which could have been blamed for the causation of this trouble.

In the majority of cases where a *post-mortem* examination is made, the pulmonary artery is found to be either obliterated or greatly lessened in its calibre, and the septum ventriculi is absent in its upper part, allowing the two ventricles to open into one common artery. Clubbing of the fingers and toes is noticed, especially in those who have lived for some time. Dr. Norman Moore, pathologist to St. Bartholomew Hospital, has made microscopical examination of these clubbed members, and reported his findings to the Pathological Society, of London. He finds it due to engorgement and slight thickening of the walls of the vessels. Females who live to maturity, and a few attain adult age, do not have the flow of the menses until late. The youngest on record is sixteen years. One cyanotic woman is on record as having borne two children.

THE PHENOMENA OF DISEASE.

BY C. W. HEFFNER, M.D.

(Read before the Logan County (Ohio) Medical Society, July 17, 1886.)

I TAKE it for granted that were the laws of nature never in any particular violated, man would die as unconscious of his death as he is born unconscious of his birth. During the period of being born he is subjected to the most severe crowdings and contortions, which, were he conscious, he could not endure, yet nature sleeps us throughout it all, and it is only with our waking that we feel the pleasures or pains of our external existence.

Nature never creates, neither does she cause pain. Nature gives us birth independent of our will, and by nature our death were as unthought of as our birth. The cycle of life full, she would sleep us out of existence, as did she sleep us in. This euthanasia, this painless, this natural death is for all who obey those laws which it is the physician's duty to know, to teach, and to enforce. The sequel to health is a happy, a painless death, engrafted on a perfect life. Should the time appear when all people shall subject themselves to nature's laws, death, so far as man is concerned, will be disrobed of all unpleasantness, fear, and sorrow, and present itself as a pleasant sleep. Many cases are called to the minds of physicians, which would seem to prove this; cases in which she would seem to vindicate herself in spite of opposition, showing how tenderly, how lovingly—how like a mother with her foot on our cradle, she would rock us out of existence—how, if the giant will with

which she has endowed us, harmonized with her will she would permit us to enjoy the riches, the beauties and the wonders of this life, so long as the cycle was incomplete, and, when full, would withdraw us so gently that no pain or displeasure would be known.

Nature's death, when mankind shall have attained that perfection, in which there shall be no more infant of days, neither an old man who hath not filled his days, the death we now die shall be robbed of its sorrow, because so premature; shall come only at her appointed time, suggesting no ugly terror inflicting no agony. If the sting of death were removed from those who die, the sharpness of grief would be removed from those who live. Our sensibilities are controlled by the observance and the breach of nature's laws. By the interruption of her laws are we caused to either wonder or weep. Not many years ago prolonged grief was regarded as an offence against nature, and melancholia as madness. We leave these preliminaries with the thought that death, a part of the scheme of life, follows as the night the day; a natural term of life is wisely planned, is rounded with sleep.

Definition of Disease.—I understand that condition of the human economy which gives rise to disorder of any of the natural functions of animal life, or produces death before the completion of the natural cycle of life, to be properly termed disease.

Names of Disease.—These are unsystematic, unfortunate, and often fanciful: Movements of animals; dancing at the feet of saints by fanatics; suffocation; burning by fire; being stricken down, etc. Words signifying these meanings, as St. Vitus's dance, apoplexy, cancer, etc., while void of pathological meaning, to us they are full of force, yet, in reality, quite fanciful, and wholly unfit for technical purposes and the higher development of medical research and practice.

Certainly the time is coming when disease shall be known as a departure from an approach to health, manifested by a series of appearances traceable to a modification of some natural physiological processes.

We now have to think of about two hundred and fifty different forms of disease. From one hundred of these nearly all the mortalities come. In a bird's-eye view of disease, for the brief period of our lives permits us to take no more, written parallel with the history of man, I am certain in my own mind, that the type of disease never changes; that no disease is entirely lost, and none entirely new is ever found. In making this statement I do not forget that certain periods of time are free from certain kinds of diseases, yet when they return they are recognized by their type. In the earlier history of London, ague was her greatest pest, now, however, is seldom seen. The sweating sickness—or King of England's sickness—has not been known as an epidemic since 1551, yet every once in a while we see isolated cases reported. The "black death" we still have as malignant typhus. The plague of Athens, as scarlatina. Smallpox, modified by hygiene, is now as it was when Aaron described it. Since Hippocrates, Galen, and others described to us cancer, it has continued to be the same painful, incurable malady. Gout is the same to-day as when Alexander, of Trallas, suffered from it. We find very little of importance to-day of inflammation, apart from what Celsus told us years ago. The more I have been actuated to "look up" the subject I am trying to write about, the more positive I am, that in the type of disease time has worked no change. No new diseases found, no old ones lost.

The phenomena of disease are by time unlimited, scarcely checked by science, yet, in a sense bounded by space, confined within certain limits and influence, belong to certain parts of the earth. A few of the phenomena are of universal occurrence, such as cerebral hemorrhage, epilepsy, and a few other nervous troubles; smallpox, cholera, and such diseases as are said (though I don't believe it) to be wafted through the air, and also those diseases whose origin lies in the lusts of man. Some may exist anywhere, yet, as a rule, are confined within certain localities.

Some phenomena are of certain temperatures only. Yellow fever, 68° Fahr.; catarrh, 41° Fahr., as a mesne temperature; typhus, 62° Fahr. In this I only try to say that the origin of disease is as that of her subject, man.

Race as a Modifier of Disease.—Many physicians have spoken of the different degrees of susceptibility to disease, as well as powers of resistance. The Israelites are given credit for the possession of greater endurance and prophylactic powers than any other race of people. The mortality of Jews and Christians stands as 1 to $1\frac{1}{4}$. The Jew, as a rule, lives $48\frac{3}{4}$ years;

the Christian 36 11/12 years. Half the Jews die at 53 1/12 years, the Christians at 39 years. One-fourth of the Jews live 71 years; the Christians 51 5/6 years. The extracts of the state, Prussia, give the Jews 1.61 mortality; the kingdom, 2.62. An increase of Jews of 1.73; Christians, 1.36. Jews double their population in 40 years; other races 51. In 1849 one Jew in 40 died; other races one in 32.

Epidemics do not so readily affect them as other races, neither are they so fatal. This power of resistance is due to their manner of life; they drink less, eat better and choicer food, marry younger, rear their children with greater care, and pay more attention to their poor.

In the history of consumption I find 300 cases. Of these, 133, or 44 1/3 per cent. Saxon; 39 1/3 per cent. mixed race; 10 1/3 per cent. Celts, and 6 per cent. Jews.

The black race is less hardy, more subject to epidemics, and succumbs quicker than other races.

Origin of Disease Prior to Birth.—These are two kinds. The first is of the body of the unborn and noticeable at birth; the second is of the body, also, but unnoticeable at birth, and often not for a long time after birth. The mother may or may not have the same disease with which her unborn babe is afflicted. In either case, the unborn babe may be indepen dently suffering from enlarged thyroid, liver, spleen, breasts, kidney, etc., or he may suffer from atrophy of either or all of the organs. There are many things that may affect the fœtus as bronchitis, and other inflammatory troubles of the brain, pericardium, pleura, etc., with which the mother may or may not suffer.

Of the second set we have the constitutional troubles, as syphilis, cancer, consumption, etc., and I surely believe that the majority of diseases are possessed of a certain hereditariness of character. Hereditation, to me, means an organic construction of body, so framed during uterine life that it may be so acted upon by external influence, as that shall so pervert the animal functions as to bring into existence those peculiar phenomena known as disease.

Home of Hereditary Disease.—For a long time there has been much doubt in the minds of men, as to the organ or organs of the body through which hereditation is handed down. Many believe that the blood is the medium through which health or disease is transmitted. From this doctrine, charlatans, with many careless but good physicians, get their cue for attributing everything to disorders of the blood, "blood disease." Almost all cutaneous troubles are so classed. In this there was neither science nor sense. Do not understand me to say that there is never any trouble that impoverishes the blood, for this would be as wide of the truth as the other. There are troubles that use up the red blood corpuscles—increase the fatty matter—seriously impairing its nutritive principles, but I do say that I believe the doctrine formerly taught, that the blood was the medium through which diseases were directly transmissible through the hereditary descent, is as truly false as it was widely disseminated. I believe that the conditions rendering a disease truly, hereditarily transmissible, are due to some defect in the nervous matter. Certain injuries of the nervous system of an animal are seen by their imprint in the offspring almost as plainly as if the producing cause were applied to the offspring itself.

Causes of Disease.—These are external, and by us partially uncontrollable. If it is true that the animal organism is to live a term of years; that natural death is but the completion of the process of life, and not a disease, it follows that the body born in health is to pass through the cycle, and is not by its own organization capable of giving origin to any of the phenomena known as disease, then the causes of disease must be looked for outside of the body. These external causes must be of such a nature as that the natural processes shall be rendered irregular, or such as to cause new processes. All disease is from without. All causes are primarily external to the body, and affect the body through the body, consequently, I believe that all disease is as purely accidental as a broken leg or arm.

Each individual type of existing disease has its corresponding individual cause, external to the economy, and acting upon it through it. Allow me to present you four sets of causes:—

1st. Let us think over those elements which we have always about us, which are a part of the natural order of the universe, cannot be separated from it, hence not under our control. These are atmospheric pressure, temperature, electrical conditions, earthquakes, etc.

2d. We have those conditions which, in some unknown way, *seem* to but do not come from nature, hard to control, yet with an im

proved knowledge controllable. Under this head we have the infectious, or "catching" diseases,—diseases dependent on organic poisons.

3d. These are those incidental to old age, and not controllable—as attraction of gravity on the time-worn frame. Gravity acts upon the body, compelled to pass through certain stages of growth and activity, lessens in the less active period of life, but continues to act until it causes slowly the arrest of nutrition and senile decay.

4th. Those causes depending upon our mode of life. Excesses in eating, drinking, and indolence; occupations, passions, moral contagions, or those generated in our own desire, or, if you will, all the phenomena which arise from the *controllable* errors of social life. Within these four causes we have a host of troubles differing in frequency and intensity.

Those of the first cause are all severe and often fatal in the harvest of mortality. Their sheaves are abundant, and the physician, no matter how talented, is seldom subtle enough to cope with them.

Those of the second cause are severe in character, more irregular in occurrence, and less often fatal. Under this division we find plagues, which, when present in their most venomous forms, the physician, for all the good he can do, might just about as well hug close his "pill bags" to his heart and await their own exit. It is true, science has given us means whereby we may to a certain extent modify and defer their coming as well as mitigate the destruction when they come; but these are very much circumscribed. Other troubles beside plagues, such as cancer and allied diseases, come under this set of causes, and, we, certainly the scientific men, have little control over them.

Those of the third cause include the changes in the natural functions and structures, which are consequent upon the long resistance of life against death. These are painless, and, as far as I know, irremedial; and yet we see every once in a while "*Science*" springing through the wicket like a bantam rooster trying to neutralize these changes, and perform rejuvenescences. To accomplish this she must destroy the perpetual maturity of man—the new physical birth—and continue a race of old individuals.

We find those of a fourth cause to be the evils, and, if we will, controllable of social life; these impose much suffering and pass from one generation to another.

Disease from the uncontrollable causes are due to variations in temperature, electrical tension, atmospheric pressure, winds, moisture, and chemical changes in the air. In the history of disease and her cause there certainly have been theories most fanciful and absurd. Outbreaks of disease, and, cries one, epidemics; another micrococci germs, animalculæ, bacilli, etc.; another malarious, influenza, etc., scarcely any giving any thoughts to atmospheric changes. In the changes of season we find a variableness in the human economy. December, January, and February give greatest weight; March, April, and May falling off; June, July, and August the minimum weight; September, October, and November an increase. This can be well explained. The first three months of the year give the greater number of cases of bronchitis, pneumonia, and all lung troubles, and give the greater percentage of their fatalities. The per cent. is, first quarter, about 37; second quarter, 19; third quarter, 12; fourth quarter, 33. Season not only is a cause of certain troubles, but it exerts an influence over other diseases present when she comes. I cannot tell how or why season so affects the system as to cause certain forms of trouble in keeping with her changes.

Rheumatism, gout, dysentery, and many others, we so well know the effects of season over; the electrified air present during these different forms of trouble has many things about it worthy of much thought. For catarrh, the ozone of the air, more readily affecting man than any other animal, destroys by 75° Fahr. Oxygen in the air in a diminished amount, and we have depression of mind, torpidity, feebleness of body, and death; this, it is true, is always local and never general.

Temperature, as a modifier of the favorable progress of disease, has been noted by us all. Until the third year in life these changes make but little difference, but after the thirtieth year the mortality doubles itself every nine years. This may be thought of thus: until the thirtieth year the body takes, constantly, on new strength and vigor. (This period Professor Pancoast fixes at twenty-five years, his Roman Consular period of life.) When this time is reached then there begins a retrograde, and the body loses resisting force. At thirty the body

yields applied force, reserved force, and wasted force. These forces are capable of maintaining a perfect organism until that period of life when its maximum of perfection is reached, which some give at thirty years and others at twenty-five years.

Applied force gives a certain amount of resistance to the body over disease; reserve, more power; waste force an extra amount of resisting power; so that the system, for a time in disease, is not called upon for any of her strength proper to the body: hence so much more rapid recovery in the strong than the weak.

The sun may produce effects on the body equivalent to a mechanical shock: if not instantly fatal we may see varied nervous phenomena. Lightning gives rise, when not instantly fatal, to reactive fever, apoplexy, blindness, etc. From all mechanical shocks the force is spent on the nervous matter, and the nature of the consequent trouble depends upon the part of the nervous system affected, and the severity is in direct proportion to the power of the shock. It is thought that the colloid nerve fluid becomes pectous through vibration from shock, and so its active properties are either forever or temporarily destroyed. Diseases of this nature are incontrollable, persistent, periodical, inevitable, constituting a part of the grand workings of the universe. They were, perhaps, the first and possibly will be the last form of ills to which the human family shall be subjected.

Disease whose Causes are External yet Communicable.—These troubles are brought about by a series of causes external to the body; they are obscure, and of nature, without the conscious intervention of man, yet are now, partially, and in time will be, absolutely under his control, as all those diseases which the healthy receive from something given off the sick.

Diseases Dreaded.—Smallpox, scarlatina, measles, typhus, erysipelas, yellow fever, cholera, hydrophobia, syphilis, and many others. Of the poisons of these diseases much idle speculation has been thrown before the anxious profession; one thing sure is, that I think they are specific. We always have measles from a measles patient, smallpox from a smallpox patient, etc. These poisons are certainly organic; belong to matter connected to a living organism; are destroyed by heat and dilution with water and chemical agents. To become infected with these poisons there must be actual contact with the living body and the infectious poisons. I do not pretend to know that these poisons are germs or little animalculæ, or that they are not, though I have no faith or belief in the germ theory. The real origin and form is not known.

Some writers teach the gland theory, *i. e.*, scarlatina is of the lymphatics; measles, of the mucous glands; typhoid fever, of the closed intestinal glands; cholera, of the mucous glands of the stomach, etc. That the gland complication is not accidental but regular, and that from the affected secretion of these disordered glands the reproducing poisons are formed.

Hurriedly let us glance at the diseases incident to old age and natural decay. There is no active disease especially peculiar to old age; it simply tells us that there is a want of resistance to the attractive forces of old age. In old age there is loss of nerve force, reasoning, emotional, and sensitive faculties. No longer from these springs flow the active stimulus to the animal functions, and this want causes hardening of tissue, brittleness of bone, hardening of cartilage, closely contracting articulations, failure of muscular tension, loss of lustre from the eye, the arcus senilis, the wrinkled brow—these are not diseases proper, but rather the sequence of life. These changes are due to the changes of the colloidal nerve matter.

In the active condition of this matter, the active basis of all living function, there is combined with it water enough to render its easy transmission through the nervous circulation, but with advancing years, and the changes they bring, this water is driven off, and the matter becomes pectous without force or stimulating power; and if the absence of water be complete then we will have complete inertia. Old age finds greater difficulties than youth to avoid the physical accidents to which he is exposed. So, also, does he have greater difficulty in avoiding those refined and physical accidents which strikes but unseen. He feels more keenly the strain he is called upon to bear; he recovers much less readily from disease. In old age the most common phenomena are failure of heart action, always after and often previous to the seventy-fifth year. This is due to want of nerve force and not to disease of the heart itself. This is not necessarily fatal, yet there are many circum-

stances which may make it so. Occur when it may it unfits its bearer for active work, sudden surprises, etc. All systems depend upon the regular action of the heart for their nutrition, and are weakened in proportion to the interference of the same. We may have a separation of parts of blood, we may have vascular congestion, digestive failure, etc. I mention these for you to discuss, but I cannot dwell upon them, for my paper is already too long.

We mention induced or special diseases, or those which by proper education and care we may avoid—as excessive labor, diet, and drink, habits of life, contact of healthy with sick. These first may be from mental or physical strain; those of second, from tobacco, food, narcotics, and alcohol; those of third, dissipation, etc.; those of the fourth are especially of the passions.

SOCIETY PROCEEDINGS.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

IS CHLOROFORM MORE DANGEROUS TO ANIMAL LIFE THAN THE BROMIDE OF ETHYL?—PEROXIDE OF HYDROGEN.

(Dr. James M. Barton in the Chair.)

DR. LAWRENCE TURNBULL read a paper at the conversational meeting of the Philadelphia County Medical Society, December 22d, 1886, containing a series of experiments by Drs. Turnbull, E. J. Reichert, and Robert M. Thomas, to prove that chloroform is more fatal to animal life than bromide of ethyl or hydrobromic ether. He also gave a history of the so-called fatal cases attributed to bromide of ethyl, and proved by a careful study of each that the first two were the result of disease of the kidney and phthisis, and the last from not using the prop between the teeth and having no one at hand to use artificial respiration, and also using a mixture of the bromide of ethyl with something else under a false name. The reader of the paper also alluded to the danger of a mixture of chloroform and nitrous oxide in London, France, and this country, and the death of one or more individuals whilst under its influence. He, in conjunction with his friends, had made a number of experiments on the sedative effect of chloroform upon the heart's action and the reflex phenomena, on irritation of the sensory filaments of the fifth nerve, thereby showing that a small dose of chloroform is much more dangerous than the bromide of ethyl, when the heart power is most seriously reduced by its action, and is incapable of supplying the brain properly, unless the patient is in the recumbent posture.

DISCUSSION ON "IS BROMDIE OF ETHYL AS DANGEROUS TO LIFE AS CHLOROFORM?"

Dr. William H. Pancoast: "I have had very little experience with bromide of ethyl, having used it but a few times. From my own experience, I would say that where an operation requires any length of time, ether is the most effective anæsthetic. My plan is to give ether without allowing the patient to be held, and if the patient becomes excited, to throw on the towel about a teaspoonful of chloroform, and after the stage of excitement has passed to continue the use of ether. In office practice I use occasionally chloroform in slight operations, or nitrous oxide gas. When I employ chloroform, I direct the patient to hold up his hands, and the moment he begins to feel the effect of the anæsthetic, the hands will drop, and at that moment any slight operation may be performed. I am satisfied that when ether is given, patients are often ether-logged. In many cases where death is attributed to shock, I think that it is due to the excessive use of ether. Ether and chloroform should not be mixed. The mixture of ether, chloroform, and alcohol is very dangerous. With such a mixture, you are giving chloroform without the precautions which chloroform requires. I have given ether in cases of phthisis and in cardiac disease, and in the last have found the heart become steadier under its proper administration."

Dr. W. Joseph Hearn: "I have not had a large experience in the use of bromide of ethyl, but I believe that it must be watched as closely as chloroform. I believe that by the careful and gradual inhalation of chloroform, every case can be anæsthetized safely. In private practice I frequently use chloroform. I believe that there is less shock from its use than from ether. In cases where there has been great shock I have used chloroform with satisfactory results. Where a person is much debilitated, it does not require much of any an-

æsthetic to produce anæsthesia. I think that we can make no comparison between the effects of an anæsthetic on animals and on man. I have frequently given chloroform to dogs, although it has invariably resulted in death."

Dr. Lawrence Turnbull: "With the utmost care, dogs can be put under the influence of chloroform, but, if we are careless, in an instant the dog is dead. The late Dr. Griswold recently stated that ethyl bromide would kill dogs quicker than chloroform. This is not the case, as the observations in my paper will show. Dr. John B. Roberts has reported four deaths from the use of ether, where the fatal result was due to engorgement of the bronchi and paralysis. Ether is frequently continued much longer and in larger quantity in the lungs than there is any necessity for. This is especially true in regard to Squibb's ether, which contains very little water. In using this, it is well to moisten the sponge with warm water before applying the ether."

The doctor here exhibited a preparation of peroxide of hydrogen, and continuing his remarks, stated "that it was discovered in 1818, by Thénard, and introduced to the medical profession in 1858 by Dr. B. W. Richardson, of London. The first knowledge of its reintroduction into practical medicine was from a pamphlet received from a friend, Dr. Landolt,* of Paris, who employed it with success in ophthalmic practice, more especially in purulent ophthalmia and ophthalmia neonatorum. This was followed by experiments with it by R. J. Nunn, of Savannah,† in the treatment of diphtheria. Its use in ear diseases was first reported by Dr. Bethman in a paper read before the Chicago Medical Society, in February, 1885,‡ and then by W. A. Dayton, M.D., of New York, who was very eulogistic, stating 'that the article has a future among the most trusted resources in the materia medica.' Our experiments were made with it in 1886 in diseases of the ear.§

"Hydrogen peroxide is a syrup-like liquid prepared when any of the peroxides are treated with an acid; the excess of oxygen is passed over to a portion of distilled water, and is converted into a solution of hydrogen peroxide. In this concentrated form it is stated to be a powerful vesicant and irritant; but in the solution in which we employ it, a twelve vol., it is non-irritating as a rule, and yet it acts as a disinfectant and bleaching agent, destroying pus, blood, and all products of the disintegration of tissue. It acts by setting free the extra equivalent of oxygen, which, producing an effervescence, attacks the septic material disinfecting it.

"In our detailed experiments* we have found it useful in mastoid abscess, ulceration and caries of the ossicles, in acute and chronic suppurative inflammation of the middle ear. When applied warm it leaves a clean, granulating surface, which is to be treated by powdered boracic acid and other gently stimulating and protecting agents, so as to facilitate the healing process of nature. When the solution is fresh it is neutral to litmus paper and has no odor. It should be kept covered and in a cool, dark closet. If by any means any organic agents come in contact with it, it is destroyed, and should not be employed. It resembles a solution of permanganate of potassium in all its actions, and yet a test of its purity is that it should bleach a weak solution of this agent. It is stated by chemists, who make the preparation, that there is an erroneous impression prevalent regarding the difference between the percentage and volume solution, the latter often being mistaken for the former. The preparation which I obtained from Morgan, of this city, and made by Sheppard, of Boston, is a twelve to fifteen volume solution, of about three to three and a half per cent.

"The pure substance is one hundred per cent. strong, and yields four hundred and seventy-five volumes of gas. A one per cent. solution then is equal to a four and seventy-five hundredths volume solution.

"Owing to the article being unstable, it is stated that the preparations usually found in the market are acidulated with sulphuric acid. This free acid should be neutralized by adding baryta water, drop by drop, until a precipitate of the sulphate ceases to form, then filter or allow it to stand, and decant the clear liquid. The medicinal dose of the hydrogen peroxide is from one to two teaspoonfuls of the two-volume solution three times a day."

Dr. S. Solis Cohen: "I have had considerable experience with hydrogen dioxide during the last four years, and am willing to go further

* See also notice in London Medical Record, March, 1883.
† New York Medical Record, 1884.
‡ New York Medical Journal, April 25, 1885.
§ Manual of Diseases of the Ear, second edition, 1887.

* Manual of Diseases of the Ear, new second edition, 1887. J. B. Lippincott & Co., Philadelphia.

than Dr. Turnbull in regard to its value as a topical cleansing, disinfecting, and stimulating agent. It has a distinctly solvent effect on effete matters, such as devitalized epithelium. In a recent case of lingual psoriasis this effect was very marked. I have even thought I could notice a change in living but horny epithelium, though this particular observation is too recent to be positive. Its internal use, in conjunction with super-alimentation, greatly improves nutrition, especially in phthisis, anæmia, and wasting diseases generally. This I have attributed to the introduction of oxygen into the blood. It may, however, be due to a stimulating action on the digestive processes. The internal administration of the drug has been neglected in this country. The best form in which to administer it is that which is known as ozonic ether, introduced, of course, by Dr. Benjamin Ward Richardson, long ago. It is but very recently, however, that I have been able to secure a preparation of this, and then only by importing it from Robins, of London, Dr. Richardson's chemist, which I could have done in the first instance. This contains thirty volumes of the gas, while the aqueous solution contains but about ten volumes. The dose of ozonic ether is one drachm three or four times a day. It may be given undiluted, or with some appropriate mixture. The aqueous solution must be given well diluted. One result of the administration of this drug in certain individuals is a slowing of the pulse. Where this occurs, the remedy must be used with caution."

THERAPEUTIC NOTES.

AMENORRHŒA.

℞. Ext. nucis vomicæ . . gr. v.
Aloini . . . . . gr. iv.
Ferri sulphatis . . . gr. xx.
M. Ft. pilulæ No. xx.
Sig.—One pill after meals.

WHOOPING-COUGH.

Dr. J. P. Thomas (Progress) has obtained excellent results from—

℞. Liquidi ergotæ . . . ʒss.
Tr. belladonnæ . . . ʒss.
Amonii carb . . . . ʒss.
Aquæ
Syrupi tolutanæ . . āā ʒij.
M. Sig.—One teaspoonful, to a child two years and over, every three hours.

MIGRAINE.

In those so-called constitutional cases of migraine, or in trifacial neuralgia, accompanied with anæmia, no combination has produced better results than the following:—

℞. Extracti ergotæ . . . ʒij.
Ext. hyoscyami
Ext. cannabis indica
Ext. nucis vomicæ . . āā ℈j.
Quininiæ sulphatis . . . ʒj.
Ferri sulphatis . . . ʒss.
M. Ft. pil. No. lx.
Sig.—One pill every three hours until relieved; then one before each meal, or every morning and night.—*Ibid.*

NERVOUS DYSPEPSIA.

℞. Tinct. ignatiæ . . . ʒij.
Tinct. stramonii . . . ♏vj.
Tinct. capsici . . . ʒj.
Ext. erythroxyli . . . fʒj.
Elix. simp. . . q. s. ad ʒiij.
M. Sig.—Teaspoonful in water after meals.

CHOREA.

℞. Tinct. veratri viridi . . ♏iv.
Ext. cimicifugæ . . . fʒss.
Syr. simp. . . . . ʒiiss.
M. Sig.—Teaspoonful in water four times daily.

THREAD-WORMS.

Dr. Sidney Martin (Practitioner) recommends—

℞. Tinct. zingiberi . . . ʒss.
Magnesii carb. . . . ʒiss.
Tinct. rhei . . . . ʒss.
Aqua . . . . . ʒiiiss.
M. Sig.—Teaspoonful three times a day.

PRURITUS ANI.

℞. Creasoti . . . . ♏vj.
Lanolini . . . . ʒss.
M. Ft. ungt.
Sig.—Apply night and morning.

SCARLET FEVER.

℞. Tinct. aconiti rad. . . ♏xx.
Potassii chloratis . . . ʒj.
Infus. digitalis . . . ʒiiss.
M. Sig.—Teaspoonful in water every four hours.

CEREBRAL ANÆMIA.

℞. Strychnia sulphatis . . gr. j.
Acidi phosphorici dilut. . ʒj.
Tinct. belladonnæ . . ʒj.
Aqua . . . . . ʒiij.
M. Sig.—Teaspoonful in water after meals and at bedtime.

QUININE AND OIL OF TURPENTINE IN MALIGNANT PUSTULE.

Dr. Don F. Rivas describes in La Union de las Ciencias Médicias some cases of malignant pustule which were rapidly cured by the application of a paste composed of quinine and oil of turpentine. One of the cases was that of a shepherd, in whose flock the disease had manifested itself. He was stung by a mosquito on the forehead, and two hours afterwards the head and neck were extremely œdematous. The paste was applied, and the pain and swelling shortly diminished. A couple of days later a large quantity of sanguinolent fluid was discharged, and by the fourth day the man was quite well. Another shepherd of the same flock, who was similarly affected, made use of some of his colleague's paste without consulting a doctor, and was also cured in four days. A third case was that of a woman who had a malignant pustule on the hand, which was unaffected by various remedies which were applied, but on the application of the quinine and turpentine paste the severe pain ceased almost immediately, and the œdema rapidly diminished, the patient being quite restored to health in four days' time.—*Lancet.*

CHRONIC RHEUMATISM.

℞. Vini colchici rad. . . . ʒij.
Potassii iodidi . . . ʒiss.
Sodii salicylatis . . . ʒij.
Syr. zingiberi . . . ʒiij.

M. Sig.—Teaspoonful in water four times a day.

NEURALGIA.

Dr. H. G. Davis (Journal American Medical Association) recommends—

℞. Morphia sulphatis . . gr. ij.
Tinct. nucis vomicæ . . ʒss.
Tinct. cinchonæ comp. . ʒij.

M. Sig.—Teaspoonful every two hours.

ANAL FISSURE.

℞. Pulv. myristica . . . ʒj.
Pulv. aluminis . . . . ʒss.
Ol. theobroma . . q. s.

M. Ft. suppositories No. iii.
Sig.—Use one every night.

DANDRUFF.

℞. Ol. ergoti . . . . ʒij.
Ol. olivæ . . . . ʒij.

M. Sig.—Apply a small quantity every night to the affected surface.

WINTER COUGH.

℞. Ammonii iodidi . . . ʒij.
Ext. hamamelis . . . fʒss.
Vini picis . . . . ʒiiss.

M. Sig.—Teaspoonful in water every four hours.

SWEATING OF PHTHISIS.

℞. Tinct. belladonnæ . . ʒss.
Ol. terebinthinæ . . . ʒiss.
Mucil. acacia . . . ʒss.
Syr. acacia . . . . ʒiss.

M. Sig.—Teaspoonful three times daily.

TYPHOID FEVER.

℞. Tinct. nucis vomicæ . . ʒj.
Acidi salicylici . . . ʒij.
Liq. Ammonii acetatis . . ʒiij.

M. Sig.—Teaspoonful in water every four hours.

ROUND WORMS.

℞. Tinct. aconiti rad. . . ♏xij.
Tinct. nucis vomicæ . . ʒj.
Ext. spigelia . . . fʒss.
Elix. simp. . . . . ʒiss.

M. Sig.—Teaspoonful four times a day.

GONORRHŒA.

Dr. E. Stover (Therapeutic Gazette) recommends—

℞. Potassii acetatis . . . ʒiij.
Ext. stigmatæ maidis . . ʒij.
Aqua destillatæ . q. s. ad fʒiv.

M. Sig.—Two teaspoonfuls in water every two hours.

PURPURA.

Dr. J. P. Thomas (Progress) has obtained admirable results from—

℞. Extracti ergotæ . . . fʒij.
Sodii chloridi . . . . ʒss.
Tincturæ ferri chloridi . . ʒj.
Syrupi limonis . . . ʒiv.
Aquæ destillatæ . . . ʒxij.

M. Sig.—Tablespoonful three times a day.

HÆMOPTYSIS.

℞. Extract ergotæ, fl.,
Olei erigerontis,
Acidi sulphurici arom. . āā ʒj.

M. Sig.—From thirty to sixty drops in a wineglass of water as often as necessary.—*Ibid.*

HÆMOPHILIA.

℞. Extracti ergotæ . . . fʒij.
Potassii chloratis . . . ʒij.
Tinct. ferri chloridi . . ʒj.
Aquæ dest. . . . . ʒxij.

M. Sig.—One tablespoonful three times a day, before meals.—*Ibid.*

TIN OLEATE FOR THE NAILS.

Thomas H. Irquhart (Therapeutic Gazette) says: "I used the tin oleate some months ago on my finger-nails, which commenced to split and break soon after I left the army, the result of scurvy contracted in the military service. I anointed the nails every day with the oleate, and at night applied it on a narrow flannel bandage. In about two months all the nails were sound and tough. I applied the oleate to the nails of a young lady friend with like success. It is also a beautiful polish for the nails."

AMENORRHŒA.

℞. Tinct. belladonnæ . . ♏xij.
Ext. cimicifugæ . . . fʒij.
Ext. polygonum hydropiper . ʒss.
Elix. simp. . . . . ʒiiss.
M. Sig.—Teaspoonful in water every four hours.

CORNS.

Dr. J. S. Hill (New England Med. Monthly) recommends—

℞. Ext. cannabis Ind. . . . gr. xv.
Acidi salicylici . . . ʒss.
Collodion . . . . ʒj.
M. Sig.—Apply twice daily.

PUERPERAL CONVULSIONS.

℞. Tinct. veratri viridi . . ʒss.
Chloral hydrat. . . . ʒij.
Elix. simp. . . . . ʒiss.
M. Sig.—Teaspoonful every half hour until convulsions cease.

INFANTILE COLIC.

℞. Spts. chloroformi . . . ♏xij.
Aqua menth. pip.,
Syr. limonis . . . āā ʒj.
M. Sig.—Teaspoonful when necessary.

DYSENTERY.

Dr. J. P. Thomas (Progress) says: My favorite formula in the majority of cases (always prefacing the treatment by a full dose of sulphate of soda, which I prefer to the sulphate of magnesia on account of its milder and yet more certain action) is the following:—

℞. Extracti ergotæ . . . fʒij.
Mucilagis acaciæ . . . ʒiv.
Acidi carbolici . . . ʒj.
Acidi sulphurici arom.,
Tincturæ opii . . . āā ʒiss.
M. Sig.—One teaspoonful every two or three hours, according to the narcotic effect of the opium or the frequency of the discharges.

PAINFUL OR SCANTY MENSTRUATION.

Take a small handful each of the red cox-comb flowers (no seed) and the tops of the horse-mint, over which pour a pint of boiling water and set aside to draw and cool sufficiently to drink. Of this take two-thirds to one gill warm, two or more times a day, as the case may require, at the time of the menstrual flow and during the flow, and you will rejoice at the speedy result. The flow can be made much or little according to quantity and strength of the tea given. If persisted in it will cure any case of painful and scanty menstruation.—J. Z. Taylor, M.D., *Medical World.*

PLEURODYNIA.

℞. Tinct. opii deod. . . . ʒij.
Tinct. capsici . . . . ʒj.
Spts. chloroformi . . . ʒij.
Aqua . . . . . ʒiv.
Sig.—Apply externally.

TO ABORT BOILS.

Professor W. F. Waugh recommends—

℞. Calcii sulphidi . . . gr. x.
Calcii lactophosphatis . . ʒiss.
M. Ft. charta No. x.
Sig.—Dissolve one powder in a glass of water, and take in small doses daily.

MALARIAL NEURALGIA.

℞. Strychnia sulph.,
Acid arseniosi,
Hydrarg. bichlor. . . āā gr. j.
Quinia sulph. . . . ʒj.
M. Ft. pil. No. xxx.
Sig.—One pill three times a day.

STERILITY.

Where syphilis or any constitutional disease causes sterility, treat these conditions persistently; if the woman suffers from obesity, reduce her flesh, and if she is constipated, with intestinal indigestion or catarrh, give hydrastin and belladonna as a tonic to the membranes, podophyllin to stimulate the portal circulation, nux vomica as a tonic to the intestinal muscular fibres, and aloes as a stimulant and tonic to the pelvic vessels to remove passive congestion.

In chronic engorgement of the pelvic organs and hyperplasia of the uterus, with reflex nervous disturbances, or menstrual derangements, the Aletris Cordial and the wine of the American ash are indicated.—W. H. Wathen, M.D., *Progress.*

THE
Medical Bulletin.

JOHN V. SHOEMAKER, A.M., M.D., Editor.
F. A. DAVIS, Att'y, Publisher.
A. L. HUMMEL, M.D., Business Manager.

Philadelphia, Feb. 1887.

UNFAIR MEDICAL ADVERTISING.

DURING almost every week of the last few months the Philadelphia daily papers have contained accurately-written descriptions of surgical operations performed by the professors and assistant professors of two well-known Philadelphia medical schools. In these articles the previous sufferings of the patients were placed in vivid contrast with the relief secured by the grave and rare operations performed with marvellous celerity by Professor so-and-so, whose rare diagnostic skill discovered the true source of the patient's ills, after forty-seven common doctors had tried in vain. This, of course, was grossly unprofessional, and in direct violation of the Code of Ethics of the American Medical Association, which expressly states that "it is derogatory to the dignity of the profession to publish cases and operations in the daily prints, or suffer such publications to be made. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician." It is not our intention, however, to dwell upon the unprofessional character of these reports. We only wish to enter protest against the manner in which the operations were uniformly described as brilliant and unqualified successes, whereas, in one case at least, of nephrectomy, the patient died within a short time after being removed from the operating table. The operation was promptly reported with various embellishments, but the quick-succeeding death of the patient was passed over unnoticed. This is unfair. If professors will continue to advertise in defiance of the wishes of the rest of the profession, they should feel in honor bound to either advertise their failures as well as their successes, or to wait until the patient recovers from the shock of the operation before allowing it to be reported and commended in the daily papers.

A NEW METHOD OF TREATING SUPERFICIAL INCISED WOUNDS.

A NEW and ingenious method of securing union in superficial incised wounds has been given to the profession by F. L. T., a correspondent of the St. Louis Medical and Surgical Journal. It possesses the threefold advantage of securing perfect coaptation of the parts, preventing the formation of cicatrices, and avoiding the pain consequent upon the introduction of sutures, and is as follows:—

Cut two pieces of adhesive plaster somewhat longer than the wound, and from an inch and a quarter to an inch and a half wide. They should be shaped so that one edge of each will follow the course of the lesion, if the latter be straight or simply curved; but if the wound be irregular or "zig-zagged" it is better to use more pieces. Turn the inner edge (or that intended to be next the wound) of each of these strips under so as to form a non-adhesive border a quarter of an inch wide, and leave an adhesive surface of from three-quarters of an inch to one inch in width. Apply these to the uninjured skin on each side of the wound, and make them adhere firmly by holding them to this with a hot, dry towel. The stitches may now be taken from side to side, thrusting the needle through the doubled edge of the plaster instead of through the skin, and after the fashion of shoe-lacing, uninterrupted. By drawing on the ends of the thread the nicest coaptation of the skin may be obtained. Instead of the ordinary plaster a perforated or porous plaster may be used, the perforations being utilized as eyelets.

THE TREATMENT OF MEASLES.

IF any doubt existed in the average parental mind as to the folly of attempting to treat measles by the administration of home-made teas, it should be dispelled by the announcement of the New York Board of Health that of six hundred and thirty-two cases of measles, occurring in that city during the week ending January 18th, eighty-six resulted in death. This excessive mortality is largely due to the fact that the poorer classes, among whom the disease is epidemic, believe that it is

comparatively trivial in character, and that medical advice is unnecessary. The fallacy of this belief is forcibly exemplified by a death-rate of fourteen per cent.

Measles is not a benign disease. It is true that in the majority of cases recovery ensues without any untoward symptoms, but even when a fatal result is averted, otitis, conjunctivitis, laryngitis, broncho-pneumonia, or other distressing sequelæ not infrequently remain for months or years.

Every case of measles should be isolated in order to prevent the further spread of the disease. Medicinally the aim should be to moderate the fever, alleviate the cough and catarrhal symptoms, and prevent the development of complications. These three indications can be fulfilled by the administration of from a half to two teaspoonfuls every two hours of the following mixture, in accordance with the age of the patient:—

℞. Tinct aconiti rad . . . ♏xvj.
Vini ipecac . . . . ℥ij.
Liq. potassii citratis . . ℥iij.
M.

The bowels should be kept freely soluble by the administration every second night of one or two grains of calomel combined with five grains of bicarbonate of soda. If the temperature rise above 103° an icebag should be applied to the head and retained there until the thermometer shows a marked reduction in the body-heat. If symptoms of lobular pneumonia develop, large doses of the salicylate or the carbonate of ammonium should be promptly employed. If œdema of the tonsils or pharynx occur, the parts should be freely scarified. An emetic may also be given with advantage.

The patient should be kept warm, but not overburdened with clothing; he should also be permitted to drink freely of cold water.

After convalescence has been established, iron, quinine, nux vomica, and other tonics should be administered for several weeks, especially to those of a scrofulous or phthisical diathesis.

THE publisher of THE MEDICAL BULLETIN is pleased to report large additions to its subscription list since the commencement of 1887.

PROTECTION AGAINST DISHONEST PATIENTS.

IT is well known that physicians suffer more than any other portion of the community from the imposition of what are known as "dead-beats." In fact the localities are few in which the hard-working physician is able to collect more than fifty or sixty per cent. of his just accounts, exclusive of the gratuitous treatment freely extended to the deserving poor. Various plans have been suggested from time to time by which this injustice could be rectified. The latest and most satisfactory is that which is embodied in a circular, signed and issued by eighteen physicians of Brockton, Mass. In this circular they call attention to the fact that there are in Brockton, as in every other city, a certain class "who pay no doctors' bills. The method usually adopted by such parties, now familiar to all physicians, is to employ first one and then another, retaining each until such time as compensation is requested, when the physician in attendance is dropped and another called, to be victimized in the same manner. . . . No class of professional men contribute more willingly to the relief of suffering humanity than do members of our profession. A glance at our books would satisfy the most incredulous upon this point, and to the appeal of the honest and worthy poor none will more cheerfully and quickly respond. But, as a measure of protection against the professional dead-beats, it is hereby agreed by the undersigned that we will publish a list to be known as the 'dead-beat list.'

"First, of such parties as, having employed one or more of our number, have for a year failed to make payment or just explanation of neglect.

"Second, of such parties as, leaving town with bills unpaid, fail to arrange a satisfactory settlement; and such list shall be kept for daily reference in the offices of the undersigned.

"In forming this list chance will be given each party to settle his or her account, as notice of intention will be sent to our agent before the name is published. And we hereby pledge ourselves to refuse attendance upon such parties as may appear upon this list until satisfactory settlement is effected through our agent,

unless circumstances of charity seem to warrant such attendance. Care will be taken in forming the list and making additions thereto to discriminate between worthy and unworthy poor, our object being to protect ourselves against dead-beats."

We commend the example of our Brockton brethren to physicians everywhere for imitation. The sooner the practice of medicine is placed upon a correct financial basis the better it will be for all concerned.

MEDICAL NEWS AND MISCELLANY.

Dr. CHARLES JAMES FOX, of Willimantic, has been appointed Surgeon-General of the State of Connecticut.

DR. EDWARD W. JENKS has established an elegant private hospital for the treatment of diseases of women at Willow Lawn, near Detroit, Mich.

DRS. HENRY O. MARCY and Ernest W. Cushing have reopened their private hospital for the treatment of diseases of women at Sunnyside, near Cambridge, Mass.

DR. GOTHAN, of Nebraska, considers it unwise to interfere with leaden bullets when imbedded in the tissues, except when liable to cause pressure upon the brain or spinal cord.

DR. FREDERICK EKLUND, of Stockholm, Sweden, states that the average period of life in Norway is forty-eight years; holding the first rank for longevity in Scandinavian countries.

DR. JOHN R. STEVENSON, of Camden, N. J., has written an interesting monograph, entitled "The History of Medicine and of Medical Men of Camden County, New Jersey."

MESSRS. REED & CARNRICK have issued a series of valuable diet lists, bound in tablet form, which they will mail without charge to any physician mentioning THE MEDICAL BULLETIN.

DR. P. J. MURPHY (Journal of American Medical Association) reports thirteen cases of incipient mammary inflammation which were aborted by the external application of spirits of turpentine.

A POST-MORTEM examination in the case of a young girl found dead in the streets of Paris, revealed the fact that death resulted from strangulation produced by lumbricoid worms, which had been vomited and escaped into the larynx.

A CASE is reported of the resuscitation of a woman apparently dead, by the subcutaneous injection of ten drops of a one per cent. solution of nitro-glycerine. This remedy might be tried with advantage in cases of severe collapse from shock.

BY recent experiments Brown-Sequard has shown that if blood is injected in limbs affected with rigor mortis, the rigidity immediately disappears, and reappears only when the introduction of blood ceases. He has noticed this phenomena even twenty-eight days after death.

MR. WALTER T. BAKER, of W. T. Baker & Co., the popular pharmacists of Chestnut and Twelfth Streets, Philadelphia, is in London, arranging for the importation of new drugs and chemicals. While there he will introduce their medicated soaps to the profession in England.

THE medical profession will doubtless be somewhat astonished to learn that a recent estimate demonstrates that about one-fourth of the inhabitants of Boston, New York, and London receive free medical treatment; in Philadelphia one-fifth, and in Liverpool the number exceeds one-half.

DR. TWEEDY, in giving his opinion of the value of hyoscine hydrobromate in opthalmic therapeutics, says that its chief use is in cases of iritis, where dilatation of the pupil for a long time is desired. Its advantages are, that unlike atropine, it does not cause an unpleasant taste nor feeling in the throat.

M. D'ARSONVAL, assistant to Brown-Sequard, has recently published some observations on the production of heat in muscular tissue. He does not believe that the development of heat in organic bodies is a primary factor. He thinks electricity is the first agency, and that heat results from the transformation.

DR. WILLIAM H. WATHEN of Louisville, Ky., recommends, in cases of sterility, associated with intestinal disorders, as catarrh, hydrastin and belladonna as a tonic to the mucous membrane, podophyllin to stimulate the portal circulation, nux vomica as a tonic to the intestinal muscular fibres, and aloes as a tonic and stimulant to the pelvic vessels to remove passive congestion.

DRUMINE, the new local anæsthetic discovered by Dr. John Reed, is an alkaloid obtained from the Australian plant known as Euphorbia Drummondii. It is said to be superior to cocaine, but must be used with caution, owing to its highly poisonous effects upon animals—sheep, cattle, and horses who eat the leaves of the plant, become paralyzed, and die in from one to seven days.

L. S. MCMURTRY, A.M., M.D., in a paper on "Intestinal Obstruction," considers the impediment to the passage of the contents of the intestinal tube to result from three classes of causes, "Congenital, Pathological, and Accidental." More than one-third of the whole number are caused, he states, by intussusception. "The indications for laparotomy in acute intestinal obstruction are just as positive as for herniotomy in strangulated external hernia."

Dr. J. G. Allen, of Broad and Arch Streets, Philadelphia, has published an interesting reprint, giving many valuable hints in the treatment of orthopædic cases. Every physician who is treating such cases, or is desirous of keeping up to the times in Orthopædic Surgery will do well to write for this valuable pamphlet, saying he acts on advice of The Medical Bulletin.

Messrs. Parke Davis & Company have issued a new and revised edition of their valuable epitome of the newer materia medica. It now contains a brief description of the action and mode of administering the more recent additions to the materia medica, and a complete property and dose list of all the fluid, solid, and powdered extracts, German tinctures, normal liquids and concentrations prepared by them, together with a complete formula list of their sugar and gelatin coated pills. Copies will be furnished without charge to any physician applying for the same.

Dr. G. W. Davis reports (Philadelphia Medical Times) two cases of the successful employment of carbolic acid in the treatment of hemorrhoids. In one case, he injected the pile with twenty minims of a fifteen per cent. solution of the acid, and instructed the patient to use, as an enemata, one drachm of the fluid extract of hamamelis to an ounce of water every morning. This treatment was continued for one week, when the carbolic acid injection was again used, and the enemata continued, and in three weeks' time the piles had entirely disappeared. In the other case, which was accompanied by a chronic diarrhœa, the same treatment was used, and both diarrhœa and piles were promptly cured.

International Medical Congress, Vacancies Filled.—Dr. J. J. Chisolm, of Baltimore, Md., has been appointed President of the Section of Ophthalmology, in place of Dr. E. Williams, who was compelled to resign on account of ill health. Judson B. Andrews, M.D., Superintendent of the Hospital for the Insane at Buffalo, N. Y., has been appointed to the place made vacant by the death of Dr. John P. Gray, as President of the Section of Psychological Medicine and Nervous Diseases. No vacancies now remain in the list of the chief officers of the preliminary organization of the Congress or its Sections, and our information from all departments is of the most encouraging character.—*Journal of the American Medical Association.*

The Dietetic Annual for 1887, published by Wells and Richardson Company, of Burlington, Vt., is an interesting little periodical, published primarily in the interests of the above firm, but contains much matter of general interest to the profession. It gives hints as to the character and quantity of food to be eaten by dyspeptics and other invalids, and outlines the proper diet in consumption, diabetes, Bright's disease, biliousness, etc., besides giving comparative analysis of the various artificial and natural foods. It also contains complete directions as to the use of their Lactated Food, which has become very popular with the profession. The annual is prepared for gratuitous distribution. Send for it, mentioning this journal.

The Rush Monumental Committee appointed to receive contributions for the erection of a statue of Dr. Benjamin Rush, of Pennsylvania, "A fearless patriot, founder of the Republic, Member of the Continental Congress, and Signer of the Declaration of Independence, as well as first Surgeon-general of the Army of the Revolution for the Middle Department, and Physician-General of Military Hospital," at Washington, announce that they have fixed the subscription rate at one dollar, that no one may be debarred the privilege of contributing. The amount required to erect a monument that will be fitting and unexceptional as a work of art, and an enduring testimonial of one, who, not only a "great physician, teacher, and investigator in medicine, but was also a philosopher and philanthropist," is forty thousand dollars. Contributors within the State of Pennsylvania are requested to forward their contributions and donations to J. H. Musser, M.D., Philadelphia.

Let Us Prepare for the Congress.—The time has come for actual work in preparing papers to be read at the approaching International Medical Congress to be held at Washington, D.C., September 5, 1887. American physicians, and especially those who practise in the great Mississippi Valley, owe it to themselves and to the profession to prepare at once some suitable contribution of research or observation, or both, to read at the Congress in the meetings of the sections.

It has been publicly charged that no important intellectual activity exists in the Mississippi Valley, and it has been charged also that we depend upon the great intelligence of those gentlemen who had the vulgar presumption to claim authority to organize the preliminary arrangements for this Congress without consultation with the profession at large for all the respect entertained abroad for American medicine. Let us be up and at work. Let us welcome the intelligent and learned men of the profession in Europe to an intellectual treat, by providing for their discussion such practical questions as will prove us to be men of energy of mind as well as body.

Dr. John B. Hamilton, Secretary-General of the Congress, Washington, D.C., is the proper person to address.—*Progress.*

From a paper read before the Philadelphia Academy of Surgery by Dr. Thomas G. Morton, entitled "Asymmetry of the Lower Limbs as

a Cause of Lateral Spinal Curvature, with a Description of a New Method for Readily and Accurately Determining any Variation in the Length of the Lower Extremities," we learn that lateral spinal curvature is not infrequently due to asymmetry of the lower limbs, which, if corrected, serious symptoms are promptly and permanently overcome. If not recognized, changes occur in the vertebral column, and in strumous cases may lead to abscess. "Bilateral asymmetry is the rule, rather than the exception, in the lower extremities." The variations in the length of limbs, as made out by Dr. Cox, were found to be from one-eighth to seven-eighths of an inch. In fifty-four persons examined by him, only six showed the lower limbs symmetrical. Dr. Morton's results prove that of five hundred and thirteen boys at Girard College, two hundred and seventy-two presented asymmetry of the lower limbs. It is not always possible to determine whether this asymmetry is congenital or acquired. Dr. Morton in making his measurements devised a method, which consists in "blocking up the short limb to correspond with its fellow." The blocks vary in thickness from the one-sixteenth of an inch to two inches. Several cases are cited by Dr. Morton as examples of the occurrence of lateral spinal curvature as a result of asymmetry of lower limbs.

A Simple and Efficient Method of Treatment of Tænia.—During the past year a little boy, aged three years, became the host of a large tænia, which was attributed to his having eaten raw beef, given to him during an attack of dysentery some few months before.

His symptoms included restlessness, wakefulness, capricious appetite, irregular fevers, urticaria, coated tongue denuded in spots, and a tendency to fall without any apparent cause. An examination of his stools revealed on one or two occasions several inches of the worm.

Several physicians were consulted and various remedies were tried, but without success. Among other things used were male fern, pumpkin seed, and kamela, but their only effect was to bring away a few joints. One reason for the failure was the impossibility of getting the little fellow to fast. He would cry so hard and beg so piteously for food, that his mother could not starve him, as she was instructed to do.

Finally, after every other plan had been tried unsuccessfully, the following course was adopted: A large pumpkin was bought and made into pies. The seeds were dried and hulled, and the pockets of the little fellow filled with them. Whenever he got hungry he was given a piece of pie, about all he ate in twenty-four hours. In addition, he was encouraged to eat the seed quite freely. For one day he tried seed and pie exclusively. At night he was given fifteen grains of kamela. The next morning, the first thing he said to his father was, "Papa, the worm is dead." At nine o'clock he passed the worm, head and all. Its total length was thirty feet, which, added to the pieces which had been passed before, and carefully measured, made altogether forty feet. The little fellow is in excellent health.

I have since tried this plan in several cases with good results.—H. A. Veazie, *New Orleans Med. and Surg. Journal.*

The International Medical Congress.—We learn that among the foreign physicians who are expected to attend the Congress, and to read papers, are the following: Mr. W. D. Spanton, of England; Dr. E. Landolt, of Paris; Dr. A. Struebens, of Brussels; Dr. Julius Althaus, of London; Dr. A. Cordes, of Geneva; Dr. P. Ménnière, of Paris ("The Treatment of Fibrous Tumors of the Uterus"); Dr. T. M. Madden, of Dublin ("Laparotomy in Relation to Modern Gynæcology"); Dr. W. U. Whitmarsh, of England ("Vaccination and the Pasteur Method"); Dr. Léon Petit, of Paris; Dr. A. Hegar, of Freiburg ("The Diagnosis, Origin, and Surgical Treatment of Tuberculosis of the Genitalia"); Dr. G. H. Savage, of London ("Some Relationships of Syphilis to General Paralysis of the Insane"); Dr. W. Macewen, of Glasgow; Mr. Edmund Owen, of London; Mr. Lawson Tait, of Birmingham ("The Pathology and Treatment of Tubal Pregnancy"); Dr. J. Veit, of Berlin ("Tubal Pregnancy"); Dr. D. Perruzzi, of Bologna ("In the Cases of Cæsarean Section in which Porro's Hystero-Oophorectomy is not absolutely indicated, What is the Best Manner of Suturing the Wound of the Uterus?"); Dr. E. Ehrendorfer, of Vienna ("The Prophylaxis of Puerperal Fever"); Dr. J. A. Doléris, of Paris; Dr. Gusserow, of Berlin; Dr. A. Charpentier, of Paris; Dr. G. Braun, of Vienna; Dr. L. Casarti, of Florence ("The Origin and Causes of Sterility in Women"); Dr. J. Korosi, of Budapest ("New Observations on the Preservative Power of Vaccination"); Dr. E. H. Kirch and Dr. A. Olendorff, of Prague; Dr. H. Power, of London ("Microbes in the Development of Ophthalmic Diseases"); Dr. A. Eulenburg, of Berlin; Dr. W. Murrell, Dr. B. W. Richardson, and Dr. J. L. W. Thudichum, of London; Dr. Dujardin-Beaumetz, of Paris; Dr. G. P. Unna, of Hamburg; and Dr. Eustace Smith, Mr. Christopher Heath, and Dr. H. Charlton Bastian, of London, are also expected.—*New York Medical Journal.*

Imperforate Os Uteri.—Some time ago Mrs. B—, æt. 27, came to me for treatment, stating she had hemorrhage from the lungs which occurred about every two weeks; that her bowels would swell about the same time, when she would have a slight menstrual show. She was very anæmic, and from her statement and general

condition, I concluded it must be a case of vicarious menstruation, and, believing some obstruction to exist about the mouth of the womb, I told her a specular examination would be necessary. She readily consented, and I found there was no os uteri (so to speak), but instead a small opening three-quarters of an inch to the left of the median line. This was too small to admit the smallest size bougie, and barely large enough to admit a knitting-needle. I stated to her that the opening was too small to permit the free outpouring of the menstrual fluid, hence the periodical spitting of blood, and the remedy would be to enlarge the opening. I did this by first introducing a grooved director, and then, with a sharp-pointed bistoury, cut one-half inch in the direction of where the os uteri should have been. This caused some hemorrhage, which, however, was easily controlled. I then inserted a sponge tent, saturated with vaseline, which I allowed to remain over night. On the following morning I replaced it with another, and so on, until the third day, washing the vagina thoroughly each time with carbolized water. The fourth day I changed from vaseline to carbolized oil, which I continued for two weeks, when she became properly unwell for the first time in her life, never having had more than a show. There was no more swelling, no more spitting of blood. I kept her on wine and iron tonics for two months, at the same time requiring her to inject the vagina with at least a gallon of warm water every day or two. It has now been six months since the operation, and my patient has been perfectly regular every four weeks and sufficiently free. I thought of using the uterine dilator, but the opening was too small to admit of its introduction, so I decided to use the knife. There was no evidence of there having ever been an os tincæ, as there was no opening and no cicatrix. The opening which I mention, I believe was a fistulous one, proceeding from the menses, collecting and causing suppuration, and, consequently, if there had never been a menstrual discharge in the uterus, there would never have been an opening.—R. C. Prewitt, M.D., *Mississippi Valley Med. Monthly.*

The "Annual of the Universal Medical Sciences," is a new publication, having for its object to present at the end of each year a report of the progress of every branch of medicine during that year in the different parts of the world. It will be published by F. A. Davis, 1217 Filbert Street, Philadelphia, and edited by Dr. Charles E. Sajous. "Corresponding Editors" have been appointed in all countries with which postal communication exists, whose duties will consist in furnishing the editorial department here, once or several times a year, an outline of all new facts relating to the branches of medicine assigned to them. This information, added to that obtained from journals, new publications, and other sources, will be placed in the hands of "Associate Editors" chosen among the most eminent men of this country, who will write the final sections of the work, each being entrusted with a subject to which he has given special attention. In addition to procuring information upon the progress of general medical sciences among medical men, efforts will be made to investigate the methods employed by uncivilized races in their efforts to treat disease, in the hope that among the many crude measures practised by them, some valuable remedy or procedure may be discovered.

There will be about one hundred and fifty corresponding editors, and sixty-four associate editors. The work will consist of five royal octavo volumes of about five hundred pages each, fully illustrated with wood-cuts, colored plates, and maps.

The value of such a work to the profession and to humanity at large is self-evident. Supported by a syndicate of some of Pennsylvania's most distinguished citizens, represented by experienced publishers, and edited by a staff of associate editors of the highest standing, the "Annual" possesses every quality to make it a great success.

Among the fifty-four gentlemen who have so far accepted associate editorships, the following may be mentioned: Drs. A. L. Loomis, J. Lewis Smith, Francis Delafield, F. N. Otis, E. C. Seguin, William H. Thomson, Paul F. Mundé, Lewis A. Stimson, E. L. Keyes, E. C. Spitzka, A. L. Ranney, and D. Bryson Delavan, of New York; William L. Richardson, F. W. Draper, and Charles S. Minot, of Boston; N. S. Davis, of Chicago; P. S. Conner and James T. Whittaker, of Cincinnati; Nicholas Senn, of Milwaukee; John B. Hamilton, of Washington; Hunter McGuire, of Richmond; John Guitéras, of Charleston; Albert L. Gihon, of Mare Island, Cal.; Christopher Johnston, of Baltimore; William Pepper, D. Hayes Agnew, William Goodell, Theophilus Parvin, Joseph Leidy, William Thomson, J. W. Holland, Richard J. Dunglison, J. Solis Cohen, James Tyson, William S. Forbes, A. Van Harlingen, E. O. Shakespeare, and G. W. Garretson, of Philadelphia.

Emmet on Dilatation of the Cervix.—During my early connection with the Woman's Hospital, I was an advocate for division of the cervix, and I practiced dilatation for the relief of dysmenorrhœa. But, in time, I became convinced that the practice was an irrational one; that it did a great deal of harm as a rule; and, unless an accidental pregnancy supervened, no one was ever cured permanently by it.

Under favorable circumstances, and with care, gradual dilatation may be carried out by means of graduated steel sounds, and the use may do as little harm as permanent good. But why em-

ploy forcible dilatation, and even with the object of lacerating the tissues of the cervix, as has been recently advocated and practised? If no other evil consequences followed this practice, and they are many, I should still enter my protest; but a new danger is to be anticipated. During the past spring, I was consulted by a woman whose cervix had been forcibly dilated two years before and purposely lacerated, as stated at the time, with the object of keeping the canal open. This operation was done for the purpose of curing an existing dysmenorrhœa and sterility, due, it was thought, to some degree of stenosis, but an examination satisfied me that the two conditions had resulted from an old pelvic peritonitis. She stated that she was very ill from an attack of inflammation after the operation, and never regained her health. I found in the cleft of a triple laceration of the cervix an epithelioma which was there springing up, and so rapidly did it develop within a few days, that I fear the operative procedure proposed to her physician will prove of little benefit.

If there is a point in gynæcology clearly defined from my experience during the past fifteen years, when my attention was first given to the subject, and from the observation of others placed apparently beyond dispute, it is the close relation, as by cause and effect, between the injury resulting from laceration or division of the cervix uteri and the development of epithelioma.

This is the first instance I have known that disease to follow divulsion or forcible dilatation, and in placing it on record, in this connection, I offer it for the consideration of those who advocate the practice.

I admit that there seems to be, occasionally, a temporary improvement in the dysmenorrhœa after the cervix has been incised, or after the canal has been gradually dilated; but this apparent benefit is due, I believe, solely to the revulsive effect of the operation, and no especial harm is done unless septic poisoning takes place. If this does occur, the pelvic inflammation existing previously becomes intensified as a consequence, and the patient's life is then placed directly in jeopardy, or is, at least, rendered more miserable than before.

We are to regard a dysmenorrhœa as a symptom merely, and one generally of perverted or impaired nutrition, where the fault will be found to lie in the nerve-centres, and not in the uterus or its appendages. An anæmic girl, whose nervous system has been unduly taxed by over-study, or from any other cause, will often suffer from dysmenorrhœa, whether her uterus be straight or flexed. Why should we, then, in treating this symptom retrograde for nearly a generation, and again practise division and dilatation of the cervix?—THOS. A. EMMET, M.D., *Brit. Med. Jour.*

NOCTURNAL ENEURESIS.—Nocturnal eneuresis is at once the pest of the nursery, and the opprobrium of medicine; in many households the infliction is accepted as an evil without remedy, the aid of science is but seldom invoked, dependence is placed in domestic arrangements, and even corporal punishment for what is undeniably an involuntary offence, is too often had recourse to as a preventative or cure. Strange to say this barbarous procedure finds advocates even among medical practitioners and authors, who, in this instance, bring into disrepute the weight and authority that should always attach to enlightened medical opinion. The limit generally assigned to this disease is from the end of the first to that of the second dentition, but in reality its duration is much longer. It is difficult to determine the exact period of its commencement. In many instances it appears simply as the prolongation, into boyhood or girlhood, of the normal condition of the urinary functions of infancy. The habit often extends into the twelfth or fourteenth year; growing lads at school frequently suffer from the infirmity, and, in my experience, men and women of mature age are not always free from its troubles. It is, however, about the third or fourth year that the habit becomes remarkable, as parents naturally expect at that period that the controlling power of the bladder and rectum should be thoroughly developed; failing this expectation, the aid of the family physician may then be invited, and his practical knowledge be put to a severe test. Independent of the objectionable nature of incontinence of urine *per se*, its collateral discomforts, and accompaniments of damp clothing and offensive odors, which affect not alone the sufferer, but his companions, would of themselves, suggest the desirability of seeking for a remedy; and it is not too much to state, that in the pursuit of an effective cure, the minds of some of the most eminent members of our profession have been exercised in vain. A short review of the remedies proposed, with a list of the writers, will not be devoid of interest, and even of profit; the great majority of the plans recommended are of an empirical nature, a few are founded on a so-called physiological basis, but their multiplicity and great variety, demonstrate that, so far, no reliable means of cure have been discovered.

The proposals and the authors may, for convenience, be classified: first into the mechanical school, such as Dowse, and tying in the catheter; Whitehead and the bougie; Adams and the jugan penis; Shepherd and his iron ring; Corrigan and collodion to the penis; Huxley and the figure-of-eight bandage; and Trousseau, Forster, and Otis, who recommend circumcision. Next, those who depend on external appliances, such as cold water baths, with Guersent, Baude-

locque, and Baron Dupuytren; Lallemand and active friction of the loins; on sea bathing with Underwood; dry-cupping, blisters to the sacrum, and electricity with Farquharson; galvanism with Laurence, Reynolds, and Good. Yet another class that relies on medication as Howard, Panel, Teevan, and Goss on strychnine; Morand, Yeo, Brown-Sequard, Thompson, Fleming, Farquharson, Teevan, and Jones, who prescribe belladonna; Langenbeck, ergot; Coote, creasote; Sequard and Hewson, bromide of potass; Buckley, tinct. ferri perchlor. and syrup ferri iodidi. In females: Edis and the intra-uterine stem, Dowse and Jones and the catheter tied in; Teale, caustic to the meatus and dilatation of the neck of the bladder, elastic pad to the urethra, etc.

The subject might be pursued at greater length, but enough is given to show the contrariety, and the contradictory nature of the remedies, and the hypotheses suggesting them. To form a correct estimate of the conditions to which nocturnal eneuresis is due, it is not sufficient to be familiar with the anatomical and physiological relations of the kidneys, bladder, and urethra, it is much more necessary to keep in mind their connections with the nervous centres, and especially with the higher nervous centres. Since the important discoveries by Claude Bernard of the influence of the nervous system on the secretion of urine, a more correct view of urinary phenomena has prevailed. It is now known that puncturing the floor of the fourth ventricle, at a point corresponding with the origin of the pneumogastric nerves, while it gives rise to the appearance of sugar, at the same time causes a copious secretion of urine. According to Michael Foster, "section of the spinal cord below the medulla oblongata causes a great diminution, and in most cases a complete, or almost complete, arrest of the secretion." And Eckard infers from his experiments the existence of a centre, for exciting the secretion of urine, situated at the level of the rhombic fossa. That the medulla oblongata influences excretion is also well established, and that the brain and higher nervous centres exercise a controlling or inhibitory power over the centre for defecation and micturition in the lumbar region, is also a recognized fact. According to Erb, "by an involuntary reflex action originating in the brain, the reflex mechanism of the lumbar medulla may be brought into activity, and an evacuation produced, is shown by the cases in which psychical impressions are followed by sudden discharges of urine, and that inhibitory powers exist in the cases of the mechanism of urination and all other reflex actions."

Mosso and Pellicani show that in man and animals any psychical act or sensory excitation is accompanied by a vesical contraction. From a clinical point of view, we must have often recognized the influence of mental emotion proceeding from the sentient part of the nervous system upon urination; that in hysteria the secretion is largely increased; that in brain disease the secretion is often nearly suspended, while a free secretion as frequently relieves brain symptoms.

The mechanism of micturition is of a complex character, no doubt, the act of micturition is directly controlled by the urinary centre in the lumbar cord, and on this ground many practitioners have directed their revulsive efforts, such as cupping or blistering to the vicinity of the lumbar plexus, but this involves a limited idea of causation. In the medulla oblongata there are inhibitory and accelerating centres in constant operation according to Goltz quoted by Erb, and the muscular coat of the bladder and the sphincter muscle of the urethra have their reflex centre in the lumbar cord, and also in the higher nervous centres of the brain, the fourth ventricle in the medulla oblongata. In the words of Michael Foster, "when the bladder becomes distended, an afferent impulse reaches both lumbar centres and brain; if the opportunity is favorable for micturition, the controlling influence of the will is removed, the reflex contraction of the detrusor taking place, aided perhaps by the abdominal muscles." In sleep, however, the controlling influence of the will is wanting, and in nocturnal eneuresis the automatic control of the centre located in the fourth ventricle is likely defective, possibly from some lesion in the medulla itself, taking the form of congestion of the organ. It is then reasonable to conclude that, independent of exceptional cases, such as acidity of the urine, calculus, contraction of the meatus, adherent prepuce, intertrigo, and ascarides, which demand special treatment, the influence of the cerebro-spinal system upon the bladder and the sphincter muscles of the urethra underlies the whole subject of causation. The so-called incontinence of urine in children, according to Foster, "is in reality an easily excited and frequently repeated reflex micturition."

Bearing these facts in mind, and having regard to the structural peculiarities of the new-born child in which eneuresis is the normal condition, we shall be aided in the search for the cause of incontinence of urine in children of a larger growth. To quote from my paper in the Practitioner of July, 1884, on "The Medulla Oblongata in its Relation with Sexual Disorder:" "At birth the medulla oblongata is in a much more advanced state of development than the brain, according to Virchow, quoted by Charcot, the life of the nervous system in the newly-born infant is almost exclusively centred in the medulla oblongata and the spinal cord, and the child is only capable of instinctive acts of reflex character; suction, for example, is totally independent of the will, the volitional centres being then unde-

veloped, and Hammond, in a lecture delivered before the New York Medical Society, insists that the seat of instinct is exclusively in the medulla oblongata." A large proportion of infantile life, not devoted to sleep, is occupied by the instinctive acts of suction and micturition, the quantity of urine passed, according to Erb, is then relatively larger than in adult life, on account of more active metabolism, and the amount of urea, uric, oxalic, and hippuric acid—*i. e.*, in unusual quantities. It appears, then, that in the infant the act of urination as well as suction has its initiation in the medulla totally independent of volition, and to find an explanation of the mechanism of unconscious micturition in the grown child, we have but to recognize the same principles and apply them *mutatis mutandis* to the more developed individual.

In sleep, reflex movements are more active and freer from control of the will, and thus the medulla, as in the infant, stimulated by the irritation of a surcharged bladder upon the cord in the lumbar region, receives the afferent impulse, speedily converted into an efferent one, and, yielding to abnormally slight impulses, discharges itself, so to speak, upon the lower centre, and thus involuntary urination takes place. The effect upon the medulla oblongata itself, of the repeated peripheral irritation, is to establish a state of chronic congestion, and thus it is that these attacks are so readily induced, as all nurses and mothers know by the child lying on its back; the already hyperæmic condition of the bulb being increased by an additional afflux of blood, due to the supine posture of the child.

A mode of treatment of eneuresis founded on the theory of a hyperæmic condition of the cord as its cause, would naturally proceed on the lines of lowering the chronic congestion of the organ, and thus it is that remedies such as belladonna and bromide of potass. sometimes relieve by their power of diminishing reflex action, and causing anæmia of the cerebral organs, but their good effects are transient and not always perceptible. I have long since discarded them as insufficient, and have adopted the use of derivatives and revulsives, such as dry and wet cupping, or blisters to the nape of the neck, applied as high as possible, and as close as circumstances will permit to the neighborhood of the foramen magnum occipitale and the region of the medulla oblongata.

In my experience I have had but seldom to apply to the cupping; one full vesication being generally sufficient; a blister three inches in length by two in breadth, either by emplastrum lyttæ, or by my favorite remedy, the linimentum cantharidis of the Pharmacopœia, applied vertically, suffices. It is very seldom that a second application is required; occasionally, especially in females, after some months of respite, there may be a call for the renewal of the remedy; in obstinate cases and in grown up patients, dry or wet cupping may be requisite to complete the cure. It is of importance to note that while this infirmity is of much less frequent occurrence in the female, it is also sometimes more difficult of cure; this may be accounted for by the anatomical peculiarities of structure in the female organs, the urethra is only one and a half inches in length, and is much wider than in the male; it is besides unprovided with a sphincter muscle so distinctive of the other sex. It is also generally well known that females, even in waking moments, have not always complete control over the bladder, and that the slight impulse communicated by a fit of sneezing, laughing, or coughing, may at any time in some individuals cause a complete evacuation of its contents. My plan of treatment has been thoroughly tested, however, in a female orphanage, and St. Patrick's Industrial School, at present containing more than one hundred and fifty female children, averaging from six to eighteen years, and the manager informs me that there has not been a single case for more than a year in the school, and that those treated by blistering had all recovered, only two having required a second application. In private practice, too, it has been fairly successful in female children. I do not propose to select any examples from females; I shall give the details of a few, sufficient to illustrate the power of the remedy in males of different ages. The first is borrowed from my paper in the Practitioner of February, 1884, and goes to prove the controlling influence of revulsives to the medulla in urinary as well as sexual debility and disorder, and it was to this case that I owe the idea of revulsives in nocturnal eneuresis:

Neurasthenia Spinalis. CASE I.—"Some twelve months since a very pale and attenuated gentleman consulted me for a complication of evils, his manner was highly excited and hysterical, his avocation required great mental application and strain, and the effect of these upon his nervous system, together with the practice of unnatural excitement of the genital organs to which he had been much addicted, had reduced him to a state of despondency which was maintained by daily and nightly seminal emissions, which made his life miserable. The irritability had extended to the bladder, so much so that he could not be absent from home more than half an hour at once—the calls were so frequent. The nights were most painful, as he had occasion to rise every hour or so to urinate, and each occasion was followed or accompanied by a semi-erection and emission. The danger was such that he lay awake the greater part of the night to prevent the attacks if possible, and only got a few hours of broken and unrefreshing sleep towards morning. I advised the application of the

wet pack over the pubic region, and anæmic as he was, I cupped him over the nape, being only able to obtain a small quantity of blood, yet the effect was instantaneous. His general health speedily improved, and he increased in weight, and for three months had not a single return of his enemy. He returned to severe study and irregular meals, and had a slight return, but a second cupping quickly restored his equanimity; and he wrote to me from England lately, rejoicing in the complete restoration of his mental and bodily health." The double infirmity in this case reminds one of the truth of the old saying, "*Castus rare mingit.*"

CASE 2.—J. McE., æt. 14 years, one of a large family, had been subject to the disease from childhood. Various remedies, such as sea bathing, had been tried in vain. He was brought by his mother, telling me that the accident occurred almost every night, and that the lad could not leave home for a day in consequence. I prevailed on her to permit me to apply the liquid blister over the nape of the neck, having previously tried it on the lad on the fourth dorsal vertebra without effect. The result was most successful. The lad, she informed me, never after had a recurrence of the attack but upon one occasion, when he had partaken of a heavy supper of oatmeal porridge.

CASE 3.—Mr. J. G. brought his nephew, J. G., æt. 16 years, to my house upon December 14th, 1885, stating that he had received him into his office and house as an apprentice to his business, but that his wife could not consent to his remaining on account of the nightly infirmity to which the lad was subject. I bade him to strip the boy's shoulders, and having applied the vesicant to the nape, as high up as possible, I afterwards covered the spot with absorbent cotton, telling Mr. J. that in five hours a blister would form, and that from that moment his nephew would never commit the offence. As I predicted so it occurred, and on inquiring a few days since, the cure, I was told, had been complete and permanent.

CASE 4.—On December 26th, 1885, Mrs. W., a widow, brought a lad of ten years to me, under peculiar circumstances. By the death of her husband she had been left with a large family unprovided for. This boy had been adopted by a religious body near Dublin, who undertook to educate and provide for him in after life. After a short residence at the college, the lad was returned on her hands, on account of this infirmity. The mother was in great distress. I reassured her, however, by saying that I would cure her son before leaving the room, proceeding in a similar manner as detailed. I further advised the lady to keep the lad under observation for a short time. She did so, and then sent him back to his friends in the college, where he still remains, perfectly cured.

CASE 5.—On March 23d, 1885, J. W. G., æt. 15, brother to a lady that I had cured of the vomiting of pregnancy by a blister over the dorsal spine, was brought to me by his mother. He was of a scrofulous habit, and ill with otorrhœa. He had been affected with nightly incontinence of urine since childhood, and his health was suffering from its effects. I blistered him, as recorded in other cases, and one application sufficed for a perfect cure.

CASE 6.—Mr. M., a widower, æt. 40, called on me in February, 1885. He had been suffering from paraplegia, which confined him to bed for several years, out of which paralysis of the bladder and rectum remained. He could not retain his urine for more than half an hour at a time in daylight; and being a business man, he was greatly inconvenienced by the frequency of the calls. He could not relieve his bowels except by a daily enema; and at night had to rise very often to urinate, and had also to suffer three or four times or more from involuntary discharges in sleep. His applications for advice were generally met with the reply, "Have you not got paralysis of the bladder?" and little was therefore attempted for his relief. After a few days I cupped him high in the nape of the neck, taking about two ounces of blood, and followed the application by a blister. Relief was soon experienced. He at once got rid of the irritability of the bladder in daytime, and up to the present date has complete control in working hours. The rectum also regained its natural power, and responded to the effects of a pill as in former days; and for a time the nightly eneuresis was relieved. He was quite rid of that trouble for four months, but having too freely indulged in the pleasures of the table, the irregularity returned, and at present he suffers in that respect as before. It will require a fresh application of the revulsive remedies to restore him to his former convalescence.

CASE 7 is in some respects, although from the opposite end of the pole, very like the last. On November 6th, 1886, Mrs. — brought a child, aged two years and four months, for advice. He had several unconscious nightly discharges from the bladder, and could not control its action even in the daytime. In addition, he suffered from prolapsus ani, and from the patulous condition of the inguinal canal the testicles were movable up and down from the abdominal ring to the scrotum. I promised that the eneuresis should be cured, and stated that I hoped the prolapsus would also yield to the same remedy. The child was again brought to me after the expiration of a week, when the mother informed me that I had performed a complete cure of the nocturnal incontinence, that the child had obtained control

in the daytime, and that the prolapsus had altogether disappeared. No change in the condition of the testicles. I visited the child to-day at its own home, and was again informed that in both respects the cure was complete. The stimulus of the blister appeared to have roused the energy of the nerves that preside over the health of the bladder and rectum in the medulla, and to have compensated somewhat for the physical arrangement in the child which predisposes to prolapsus ani. According to Professor Cunningham, "the distance between the tip of the coccyx in the new-born child (and consequently in the young child) appears to be relatively greater than in the adult man."

I have thus adduced some selected cases in proof of the efficacy of my line of treatment, and in support of my ideas on the etiology of the disease. The last cases have this in common, that while both in the child and in the adult its controlling power over inordinate action of the bladder was established, the tone and function of the rectum and anus were, as a collateral result, also restored. In cases three and four I had the satisfaction, besides curing the disease, of influencing in a beneficent manner the future lives of the young patients.—ALEXANDER HARKIN, M.D., F.R.C.S., *Provincial Medical Journal.*

BOOK REVIEWS.

Diseases and Refraction of the Eye, with Surgery and Treatment. By L. WEBSTER FOX, M.D., Chief Clinical Assistant Ophthalmological Department, Jefferson Medical College Hospital; Ophthalmic Surgeon Germantown Hospital; late Clinical Assistant Moorfield's Eye Hospital, London, England, etc., and GEORGE M. GOULD, A.B. Quiz-Compend Series. 12mo., 150 pp., 60 illustrations. Cloth $1.00. P. Blakiston, Son & Co., Philadelphia.

The student of medicine and general practitioner, as well as the ophthalmic surgeon, will welcome this very valuable Compend on Diseases of the Eye. Of the many books that have appeared on the subject of ophthalmology within the last year, none contain such valuable information on various topics as this manual. The logical arrangement of the different chapters, commencing with a *résumé* of optics, the use of the ophthalmoscope, functional disorders affecting vision, special diseases of the lids, conjunctiva, eye-ball, and the internal tunics of the globe, as well as the surgery of the eye and its coverings, reflects much credit upon its authors, who have certainly a thorough knowledge of the subject, and also the art of giving to their readers much information *in parvo.*

The chapter on optics may be above the comprehension of the average student, but with this we find no fault. To the student who wishes to master this subject we could refer him to several valuable works on the subject. To the advanced oculist, who has forgotten much, the chapters will refresh his memory on the more important principles of optics. The chapters dealing with refraction are particularly clear and comprehensive,—the student mastering these chapters will find that much chagrin and annoyance will be spared him upon entering his professional career as an oculist.

When should a mydriatic be used? will be valuable information for the physician. Retinoscopy also receives careful handling, and we read with pleasure the chapter on "Prescribing Spectacles," as this is the only work—Landolt's excepted, which is far too voluminous for the student,—which deals with this very important topic.

In the treatment of diseases of the eye the authors have given us many clinical hints which are valuable. The chief surgical operations upon the eye are concisely and clearly described, far beyond what we should expect in a work of this kind. The statistical pages are particularly valuable, inasmuch as they show the large amount of ocular troubles which exist.

The book contains many illustrations of optical principles, surgical operations, and surgical instruments,—about sixty in all. We must compliment the authors for giving us in terse and concise language, what could only be gleaned by the student from several volumes of large size.

The full list of prescriptions to which reference is made throughout the book, will be valued by the student and physician. For the benefit of the student of ophthalmology, we quote one of the maxims given by the authors under the head "Clinical Hints and Maxims:"—

"Cultivate a habit of clear and accurate observation of the eye. The successful ophthalmologist often suspects or bases diagnosis upon a perception of subtle and delicate differences in the external appearance of an eye that he would have difficulty in explaining or showing to another."

We can safely recommend this book to the student and busy practitioner as the best manual on diseases of the eye which has appeared for a long time.

Wattstephen, Genius of Steam; Vultagal, Genius of Electricity; and *Petroleum and Natural Gas,* are the titles of three little books got up by "a man" in the service of the famous *Rock Island Route.*

They are instructive and entertaining in the highest degree for the young folks, and, although they are obtainable for ten cents each, they are worth many times that sum. Mr. E. St. John, General Ticket and Passenger Agent, will send them on receipt of price from headquarters at Chicago, Ill.

COMMERCIAL NEWS.

Cough Mixture.

On the Continent of Europe the old-fashioned cough mixtures, containing squills, ipecac., and opium are rapidly going out of vogue. Nearly all clinical teachers throughout Germany now prefer to use the genuine Johann Hoff's Extract of Malt, which is given hot at bed-time, with or without the addition of sugar; taken in this way it invariably insures a good night's rest. In December number of The Medical Bulletin we published the following formula of Dr. I. N. Love:—

℞. Johann Hoff's malt ext. (genuine) Oj.
Whiskey (best) . . . . ℥vj.
Glycerine (c. p) . . . . ℥vj.
Juice of six lemons.
Crushed sugar . . . . ℥ij.
Mix and boil ten minutes.

Sig.—From one to two teaspoonfuls to one or two tablespoonfuls, according to age, every one, two, or three hours, as may be indicated.

Dr. A. L. A. Toboldt has since taken occasion to commend this *combination*, but says: "The genuine Johann Hoff's Malt Extract, possessing by itself all the virtues of the combination, and used throughout Europe, giving entire satisfaction without the addition of whiskey, glycerine, or lemon juice, would be still more desirable, and if anything be even more sure to agree with the most delicate stomach, especially of consumptives and infants."

Physicians prescribing the Johann Hoff's Malt Extract should exercise care that their patients do obtain the *genuine* article; a number of imitations are sold under the same name in the United States. The genuine is generally specified as "Johann Hoff's Extract of Malt" (Eisner).

Ovaries *vs.* Testicles.

The American Lancet says that just now one of the fashions is the castration of women. This is done for a great variety of reasons. Castration of men for the relief of similar conditions has not yet come into fashion. But when women become more powerful in the profession, we shall expect that women physicians will introduce the fashion of castrating men for the relief of the numerous ills the male sex suffers from. Particularly the old bachelors should be attended to. Testicles are of no use to such persons. To be rid of them will remove temptation to incur disease and suffering. As a fact, however, men hang on to their testicles like grim death, while women are easily persuaded to give up their ovaries to the surgeon's knife.

It is said that raw cow's milk is better than boiled for young children. Boiled cows don't give good milk.

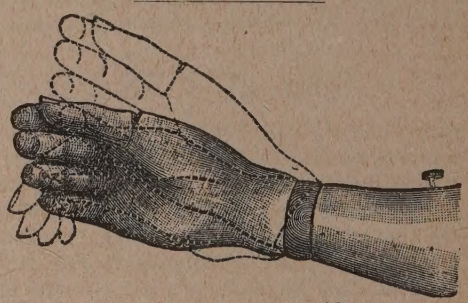
Good Investments.

We would call attention to the advertisement in another column of the Security Mortgage and Investment Company, Pierre, Dakota, and the South Platte Loan and Trust Company, Holdrege, Nebraska. These are careful, conservative companies, with ample capital, and are managed by competent business men. They are represented in the East by Henry A. Riley, Esq., 170 Broadway, New York, who is best known to the medical profession as the author of many interesting papers on medical jurisprudence, which have appeared in The Medical Bulletin, The Medical Times, The Therapeutic Gazette, and other prominent journals. He also contributed the articles on "Legal Medicine" to the "Reference Handbook of Medical Sciences." Physicians seeking safe investments will do well to write him, saying they act on advice of The Medical Bulletin.

Mrs. Muldoon.—"Mrs. Mulcahy, have ye heard the new rimidy for hydrophoby?"

Mrs. Mulcahy.—"No, faith. Phat is it?"

Mrs. Muldoon.—"Plaster of Paris, begorra!"
—*Indiana Pharmacist.*



The above cut represents an artificial arm with ball and socket wrist joint, recently invented and manufactured by George R. Fuller, successor to the late Dr. Bly, of Rochester, N. Y.

The improvement admits of placing the artificial hand in any position that can be attained with the natural hand, and is an important advance in the progress of prosthesis.

Wasting Diseases.

Scott & Bowne, manufacturing chemists of New York, make a specialty of producing an emulsion of cod-liver oil with hypophosphites. Their great care in selecting the oil and in making the combination is amply proven by the high therapeutical value set upon the emulsion by the profession. It is no new remedy, but has been steadily growing in demand for a number of years. It is certainly very useful in restoring wasting tissue, and in cases of scrofulous children it acts almost as a specific.—*Massachusetts Medical Journal.*